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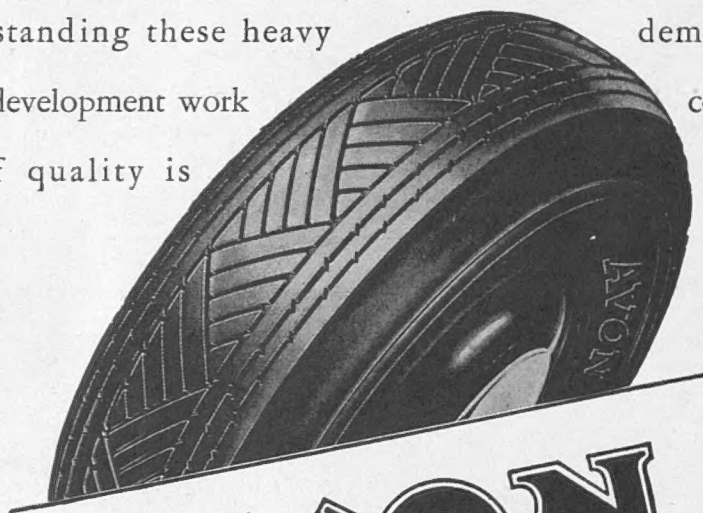

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Volume CLXI No. 2104

THE SPHERE

With which is incorporated "THE GRAPHIC"

The Empire's Illustrated Weekly

London, May 18, 1940

GERMANY'S NEWEST WEAPON —THE PARACHUTE TROOPS

The New Method of Warfare in the Attack on the Low Countries

Drawing by F. Matania (from photographic and other material)

Without doubt the most important news in connection with the invasion of Holland and Belgium has been the employment of Germany's parachute troops. The idea of dropping armed troops by air was not a German one; it was first developed by the U.S.S.R. army and used by it against the Finns. The Germans have seized upon the idea in the hope that with larger numbers than those employed by Russia, a serious dislocation can be brought about behind the main defence lines. Immediately the storm broke on Holland on the morning of Friday (May 10) parachute troops were released in many parts of Holland and an attempt to seize The Hague and Rotterdam stood out as major objectives. The types of men employed on this parachute service differ considerably (see photographs on p. 210) and the equipment they carry varies with the task before them. They may be intended to hold an aerodrome, seize the heart of a city, or for some smaller act of sabotage. They are said to carry folding bicycles for greater mobility and light quick-firing guns for attack and defence

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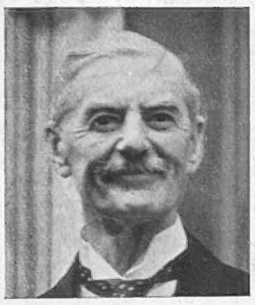
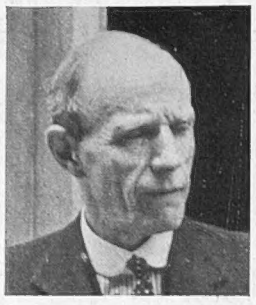


MR. NEVILLE CHAMBERLAIN, Lord President of the Council



VISCOUNT HALIFAX, Secretary of State for Foreign Affairs

THE NEW PREMIER AND TWO OF HIS MINISTERS: Mr. Winston Churchill with Sir Kingsley Wood (left), Exchequer, and Mr. Anthony Eden, Secretary of State for War

SIR ARCHIBALD SINCLAIR, Secretary for Air

MR. A. V. ALEXANDER, First Lord of the Admiralty

BRITAIN'S LEADERS IN A WAR NEWS

THE GREAT STRUGGLE LETTER—No. XXXVII

32–34, ST. BRIDE STREET, E.C.4

THE WHITSUN WEEK-END.

—Instead of holidays in the sun, total warfare for everyone in ten European countries. During those two vital days, while Democracy was exercising its inalienable right to wag its tongue in criticism and to upset its Government, the Dictator State struck again—as was to be expected. At the moment of writing, Germany is now fighting, on an extended and half encircled front, Britain, France, Norway, Belgium, Holland; and, in spirit, Poland and Czechoslovakia. Sweden is busy supplying iron ore to Germany, and America is engaged in preparing—for a Presidential election. To-day . . . but what of to-morrow? Perhaps once more England is to save Europe. By arms, no doubt, when our maximum effort is launched and our output increases as our political ranks are closed. But, more immediately and obliquely, by having the honour to be the bee in Hitler's bonnet, the madman's King Charles' Head. It is the raging Anglophobia of Hitler, Ribbentrop, and Goebbels which decided this latest act of lunacy and brutality. For that Anglophobia, Hitler is prepared to sacrifice the Reich—for the chance of finding effective ports and aerodromes for a big scale air and sea attack on England. He has lengthened his front (and I think shortened the war) and encircled himself in the net he laid for others. No question that our two days' debate and the uncertainty it left decided the hour of Hitler's latest stroke. How far away seems the teeming interest of two days of Parliamentary debate when the weaknesses of Britain and its Government were stressed to a cynical world, and all its strength and solidarity and achievement concealed as vices. Yet those days of talking while Hitler planned and thrust, are of great significance, and since news of battle will be unreliable until this "Newsletter" goes to press it is of talk and not of action that we must write. Before we do so, one more word as to talk. I shall despair of British Democratic Government if, from now on, until these thrusts are pegged down, our leaders waste thought or vital moments in accounting for our every action to neutrals, and in rebutting the charges or explanations of the Nazis. Let them have done with words and let them be as relentless and, if need be as ruthless, as the enemy.

A NEW PREMIER—AND AN OLD BATTLEGROUND.

—The weekly journalist copes in vain with the swiftly moving march of tremendous events. This week I can do no more than to refer briefly to the latest events that came under purview during the week-end last past and then hark back to happenings which the invasions of Holland and Belgium turned in an hour from fierce and pulsing passions to sere and faded memories, which few wish to recall but which must be recorded for our learning. On the day following the Government's victory-defeat in the Commons the Low Countries were invaded in the small hours, and in the afternoon Mr. Chamberlain—having ascertained that the Labour Opposition would not co-operate in any Government under his leadership—resigned in favour of Mr. Churchill. While Mr. Churchill was shaping his new Ministry the old Ministers carried on with their allotted tasks, and it soon became clear that the Nazis had gained nothing from the anticipated confusion of divided counsels and control in the British administration.

MR. C. R. ATTLEE AND MR. ARTHUR GREENWOOD, respectively Lord Privy Seal and Minister without Portfolio

The story of Norway was not repeated. The Allies responded to the same tardy call for help within a few minutes; the plans had been made and they *worked*. As the Allies moved once more into the battleground of Europe, it was with the knowledge that the outposts were manned by resolute men and stout defences, prepared in advance with realism and not composed of the stuff of vain dreams. Mr. Churchill announced his submissions for the key-posts in his War Cabinet on the 12th. Good luck to them. May they be as little deserving of censure and criticism as, we all hope, free from it. On these men now rests the supreme responsibility for our survival as a free nation.

THE CONDUCT OF THE WAR.

—What are one's reflections after studying the long debate on the conduct of the war with special reference to the initial failure to achieve an outside chance in Norway? First of all, that there went two vital days in talking which, for the key Ministers, had been far better spent in planning and in attending their departments. But, we can argue, the Nazi key-men must spend a good deal of time talking, though behind closed doors, and a certain acrimony and difference of opinion may be apparent in their discussions. We condemn the Government for being behindhand with plans, for arriving on the field too late, for panting in vain behind the Nazis on the race track of war. We point out that this is due to the fact that the key-men are far too much occupied with what in war-time are irrelevant matters, matters of departmental procedure, intervention in debates, oratory and so forth. What is the root cause of these excursions by Ministers into irrelevances of war-time? It is patently due to their efforts to meet the demands of the free institutions they represent, and whose rights they respect only too well. If there were no questions to be answered in Parliament, no growling demands for news from the press; for reports of progress, for interim statements, for heartening up or stimulating, or for warning and correcting, the exuberance of the public, how much more time would Ministers have for planning and perfecting war strategy on the home and battle fronts! All this is incontestable, but is it remediable? Strike at these rights of a free democracy and your Democracy apparently ceases to exist and you kill the very thing for which you are fighting, desperately and for your lives. Certainly the Government could justly point out the monstrous crime committed by our Democracy during two vital days: while the Norwegian campaign hung by a hair, while the Nazi chiefs were perfecting a new lightning stroke, our key-men were engaged half the day in their own political defence, and in meeting the criticisms—some petulant—of patriots and party strategists.

LESSONS TO BE LEARNED.

—Is that, then, the end of the case? Are the defendants acquitted and discharged? By no means; they remain to be tried on minor counts. There are still a score of weaknesses to be repaired, a vast amount of lost ground to be made up. Still we have a Government with roots remaining in the Edwardian Age; still there are longing, lingering looks cast back to the days when party strategy was a game of vital importance. Still to-day key posts are filled by men who have done good and loyal political service under peace conditions. Still there is a belief that a clever speech, a classic phrase or two, can repair the damage done by half-hearted action, or even take the place of action. To criticise the strategy of the war to-day is worse than unpatriotic, it is idiotic. We have not the knowledge, let alone the experience, for criticism. But the Home Front is not *terra incognita*. A country, taxed to vexation, received the second war Budget as a half measure and was shocked by its moderation. It received with strong disappointment the news of the appointment to a key War Ministry of a Minister who has not proved himself fitted for times of grave danger. It has been grievously shocked by the failure (to take a single example) to secure any nation-wide organisation for salvage; it is disgusted to obtain constant proof that the squandermania of 1917–20 is once more rife; it deplores the continued bungling of domestic-coal supply and, generally, the startling contradiction in fact of the promises and assurances of new Ministers of domestic departments.

THE GOVERNMENT—AND THE PEOPLE.

—To a far greater extent than does the Government, the people realise that war is an amateur's game, a great guessing-match, won at last by the side which makes fewest howlers. The people, too, are far braver than the Government, far less cast down by reverses. To that extent, they remember more about war than does the Government. They know perfectly well that reverses are inevitable. It was argued in the late debate that what set back the country was the disappointment of the withdrawal from Southern Norway coming so soon after optimistic assurances by Mr. Churchill and General Ironside as to the parts which Navy and land forces could now play in holding the German invasion. But why did they make these exuberant speeches? And which was more disappointed and cast down by the events, Government or people? I do not think the people. They are realist about war. They know that in the end the beastly business is an orgy of destruction and that the only way to victory is to succeed in the rivalry of killing and destroying. It matters not what key position is won; in the end it is the destruction of men and material that counts. Do the Governments of the Allied countries accept that grisly truth? To the small neutral, it may appear that they do not. A cynical observer might well coin an aphorism on the subject: "The soils of the big Powers are sacred and so observed by the big belligerents. Small nations exist to provide a battleground for contending great Powers. Saarbrucken is sacred, because it has a Roland for its Oliver in France. But Poland, Finland, Denmark, Norway, Belgium, Holland, make battlegrounds and very good targets." Such thoughts are not extravagant in the madness of world war. This world war is stark realism. Is our Government relentless enough and realist enough; are our Government-authorised institutions?

MR. CHAMBERLAIN—A PAINFUL IMPRESSION.—

Those who cry loudest for loyalty to the Government in power, those who most deplore the fact that, while Totalitarian States in war remain solid under leadership, in Democracies leaders come and go, yielding to public criticism or temporary pessimism, must have confessed with sorrow and anxiety that Mr. Chamberlain himself last week made a most disappointing show. His continual harping on the public's "failure to realise the extent and imminence of the threat which is impending," and the echoing of it by some of his less robust Ministers, has long puzzled or irritated us, for it seems to be an echo of their own heart-beats. In his speech on the debate, it was a palpably false note, which must have struck unpleasantly in almost every ear which heard him. It revealed an utter misunderstanding of the temper of the people. I do not believe to-day (when nothing has happened which, on the analogy of the last Great War of glaring failures, can shake our faith) that one Englishman in 100,000 contemplates the possibility that England and France together could be beaten by the Germans or by the Axis Powers combined. In the last months we reluctantly came to the opinion that some of the Cabinet were in that small minority and went about their business with doubt in their hearts. That was indeed a fearful suspicion which Mr. Chamberlain last week failed to allay. To criticise war strategy seems to me, as I have said, as idiotic as unpatriotic. That Mr. Chamberlain had, when he spoke, intelligence of expected new Nazi strokes unknown to us was evident enough. What was so sinister was the impression he left behind that such intelligence has rather daunted than stimulated him. There is no doubt that on April 7 Mr. Chamberlain showed himself completely out of touch with the public temper and very ill-informed as to its nature. It is also true that joints in the Government's harness gaped terribly and were repeatedly thrust through. A public servant, tried as heavily as Mr. Chamberlain, must sometimes reveal himself to be under the weather. That is excusable if lamentable. His most loyal supporter, however, must confess that, if the mood persisted, it would be a vital handicap to leadership in a life-and-death struggle.

THE OLD STAGER

THE ALLIES RUSH to BELGIUM'S AID

First Pictures as the British and French Dash up to the Front

A BRITISH LIGHT TANK PASSES THROUGH A BELGIAN TOWN: The children, deafened by the roar of the steel caterpillar tracks over the cobbles, shield their ears. The advance into Belgium was wildly welcomed by the citizens, many of the older of whom were also witnesses of the last German invasion in 1914

A FRENCH "CHAR D'ASSAUT" ROLLS THROUGH A BELGIAN TOWN: As the Allied forces advanced at the gallop across the frontiers the Belgian troops saw for the first time the might of the British and French forces—many of the tanks, guns and other weapons still being on the Secret List, and therefore never before seen by our new Allies

THE SCENE IS A TINY VILLAGE IN LUXEMBOURG, with French tanks, shuttered down for instant action, dashing up to meet the oncoming Germans and stem the advance. For hour after hour the stream of war machines rumbled through town and village, mechanisation proving its value to the hilt during these first anxious moments

A BRITISH BREN GUN CARRIER MOVES UP: For eight weary months the British Army encamped along the Belgian frontier under circumstances of the greatest secrecy. As soon as the Germans crossed the borders into the Low Countries this army moved up into Belgium in conformity with a predetermined plan laid down in the greatest detail during the months of waiting. The British troops were welcomed with open arms by the Belgians, many of whom are seeing their country invaded for the second time, and by the same foe, in twenty-five years. Not a single soldier of the British Expeditionary Force went on foot, so rapid and so complete has been the mechanisation within recent years of our Army. Those of our soldiers who travelled in convoy trucks were all protected from aerial attack by A.A. guns mounted on their vehicles

A BRITISH GUN CROSSES THE FRONTIER INTO BELGIUM: Vehicles of all types took part in the dash into the invaded country: it can safely be said that never in the world's history has an army gone into action quicker, or more fully equipped, than the British and French forces

ESCAPING FROM THE GERMAN FURY

LEAVING THEIR BELGIAN HOMES, SOME ALREADY DESTROYED: During the week-end a stream of refugees from Holland and Belgium began to reach England. "Some of their homes had already been destroyed by a senseless bombing, which had no military value, "a blind fury which tore holes in humble streets." The refugees set out for the Dutch port and were fired upon while on the road

A BELGIAN PEASANT SETS OUT FOR ENGLAND: This peasant, with wife and daughter, is here seen leaving a Belgian village with small hand luggage. Eventually the little party reached the ship which was to convey them to England just before the Dutch surrender

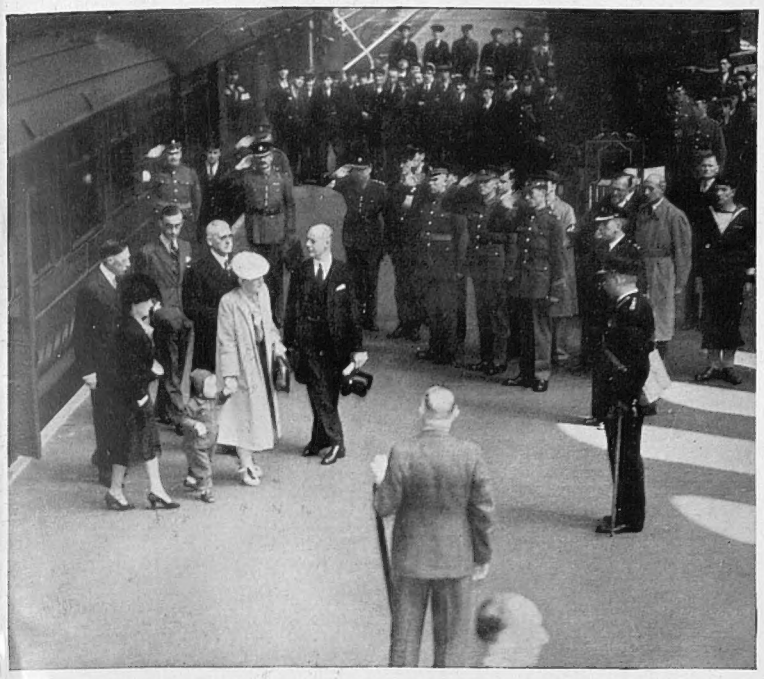
SAFELY LANDED ON BRITISH SOIL: Arrangements were being made last week-end, before the military collapse of North Holland, to deal with the flood of refugees coming to England from the stricken lands. All classes were represented

HAPPY TO SEE THE SHORES OF ENGLAND: This group of Belgian children is expressing its first happiness on drawing near the port where it was to disembark. At the beginning of the week a party of 600 to 700 came over in a 2,000-ton vessel. Their port of departure had been bombed, but the ship itself escaped unharmed

PRINCESS JULIANA TAKES THE BABIES OUT—IN LONDON: After a safe arrival the Royal party have taken up residence in London. Here the Princess is pushing the perambulator carrying the infant baby, Irene, and Prince Bernhard is leading out little Princess Beatrix who is also seen below

OUT FOR AN AIRING IN A LONDON SQUARE: The little children were taken out by Princess Juliana herself accompanied by Nannie, for the morning airing which

DUTCH ROYAL REFUGEES



THE ARRIVAL OF THE DUTCH ROYAL PARTY IN LONDON: Princess Juliana was welcomed at the station by Lord Harewood, representing the King. A guard of honour was drawn up on the platform as the Princess alighted with her suite. Queen Wilhelmina followed later, crossing in a battleship

ROYAL DUTCH BABY'S STRANGE COT: The younger child of Princess Juliana was carried ashore in a new white gas-proof cot. They have brought these cots over for the greater safety of the children. Little Princess Irene was born last August; her elder sister on January 31, 1938. The Royal Family was lucky to escape capture by German parachute attack

no child must miss, if it is humanly possible to give it. Two London constables conveyed a comfortable air of security to the little scene. The news of the surrender of North Holland must have been a sad moment for the Royal Family

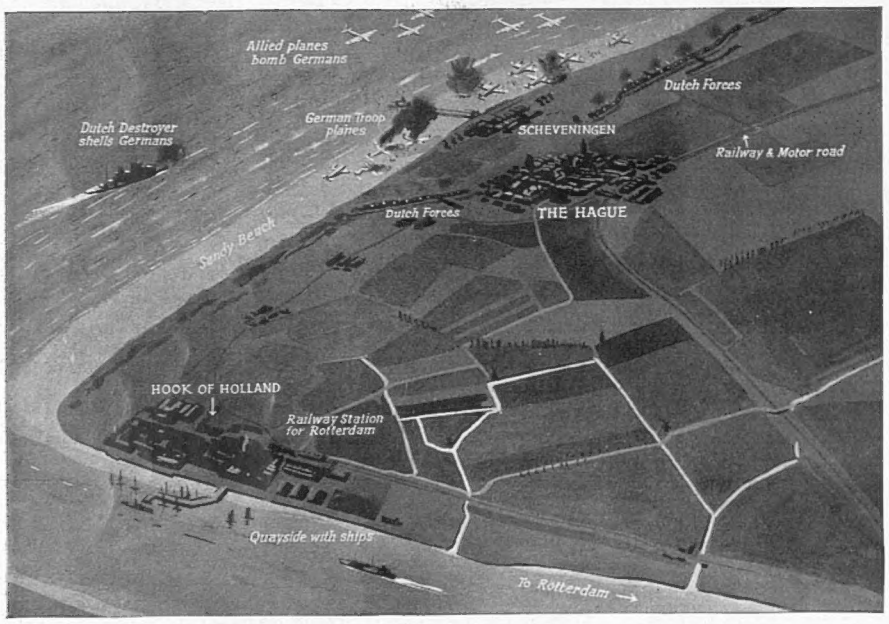
MINISTERS and DIPLOMATS ARRIVE

DUTCH MINISTERS' PLANE MAKES FORCED LANDING NEAR BRIGHTON: A Dutch plane carrying Dr. E. N. van Kleffens, Minister for Foreign Affairs, and his wife, and Mr. C. J. T. M. Welter, Dutch Colonial Minister, was damaged by shell splinters while on its way across. The Ministers arrived in England to confer with Lord Halifax. The plane is here seen after landing at Brighton

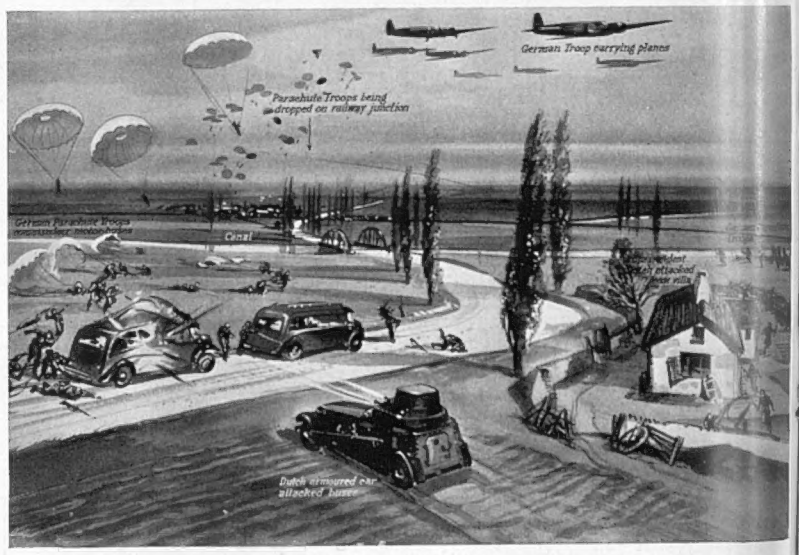
BRITISH DIPLOMATS FROM HOLLAND REACH ENGLAND: When three British ships arrived at a British port carrying hundreds of refugees to this country, just before the surrender of North Holland, among them was Sir Neville Bland, the British Minister to The Hague, with his wife. Special trains were standing by and the British official parties were soon back in London

THE DUTCH PREMIER ALSO ARRIVES IN LONDON: The Dutch Prime Minister, Jonkheer de Geer, has arrived in London with members of his Cabinet. The Prime Minister (hatless, centre) with the Minister for Social Affairs (left) and M. Welter, the Minister for Colonies, out walking in London after their arrival. The Hague came under German control on Wednesday

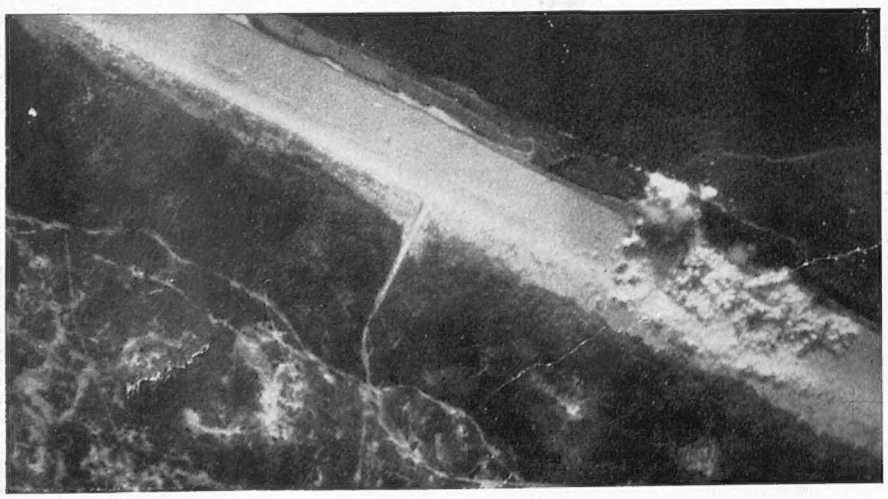
THE CROSSING OF THE RIVER MAAS BY RUBBER BOAT: One of the initial successes in the sudden early morning dash of the German Army against Holland and Belgium was the crossing at one point of the River Maas by rubber boat. German troops were flown in troop carriers to the right bank of the Maas, where it flows close to and parallel with the Dutch-German frontier. The troops appeared suddenly on the bank of the river, disembarking from troop-carrying planes which carried rubber boats. These were inflated and a crossing accomplished before the Dutch could gather sufficient force to offer serious resistance



THE ATTACK ON THE OUTSKIRTS OF THE HAGUE: Another lightning attack was that directed towards capturing The Hague and any important people who might happen to be there. It was to be accomplished by landing troops on part of Scheveningen beach and with the aid of local pro-Nazis the seat of Government was to be seized. The German sympathisers marched out of a house in the hope of gaining the ascendancy, but this plan fell through and the marchers got badly cut up. The Dutch destroyer *Jan Van Gelder* assisted from the sea and Dutch ground troops held off the attackers



A GENERAL IMPRESSION OF THE PARACHUTE ATTACK: The attempt is here made to coalesce in a drawing the effect of a concentration of parachute troops in a given district. A number of planes have dropped armed parachutists. In the foreground are two incidents actually recorded: on the left, two buses commandeered by the enemy are met with fire from a Dutch armoured car, while on the right, a villa is being used as cover during a counter attack by Dutch troops



COUNTER ATTACK BY THE R.A.F. ON GERMANY'S ATTEMPT TO CAPTURE THE HAGUE

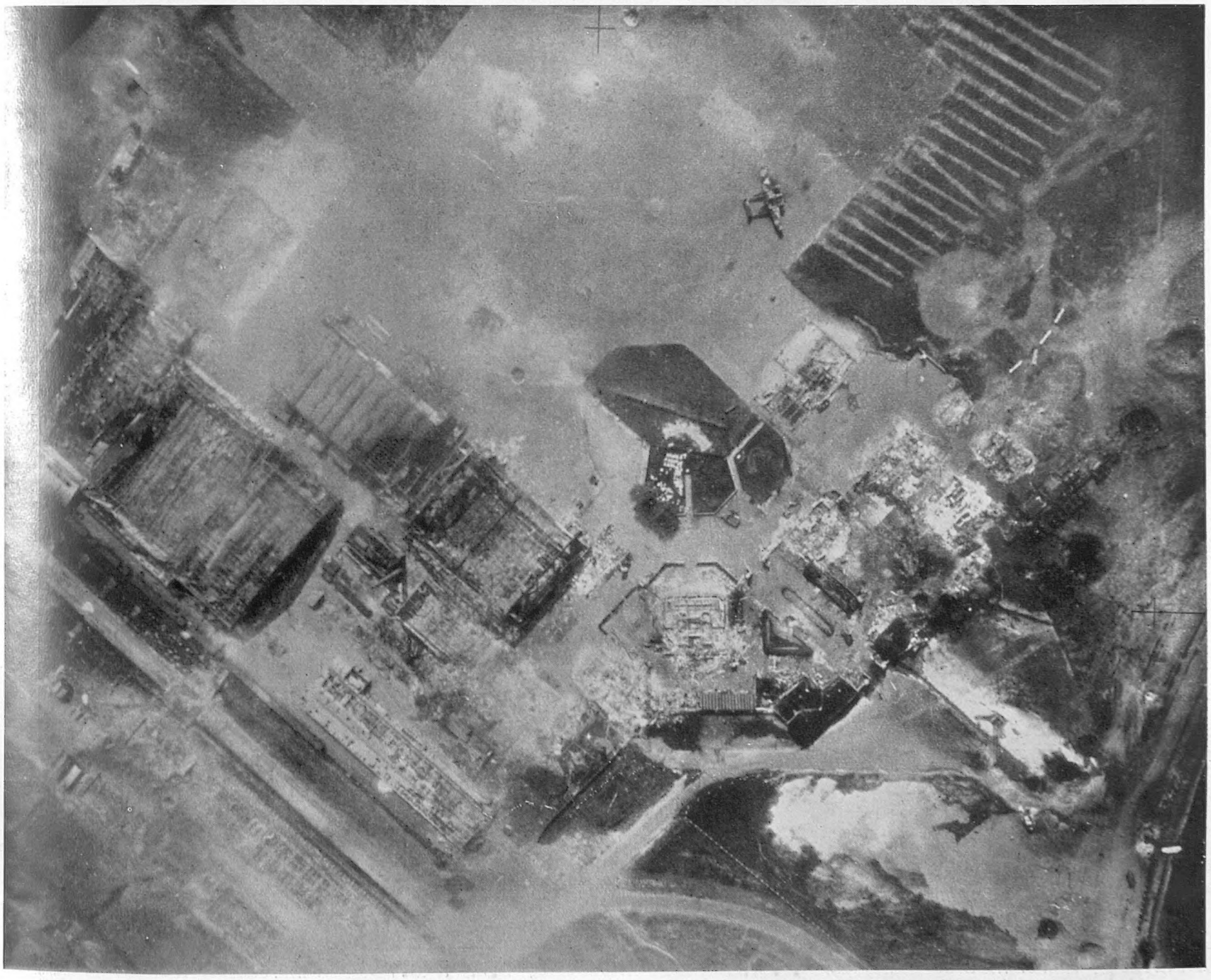
One of the principal objects of the first day of Germany's attack on Holland was the effort to secure the centre of Holland's Government at The Hague. German troop-carrying planes landed on the long sandy beach stretching north from the well-known Scheveningen bathing resort, which lies in close proximity to The Hague. The R.A.F. promptly intervened by attacking the German troop-carrying planes. Bombers and fighters dived to 50 ft. and smashed plane after plane. Here are bombs actually exploding on the beach (*on the left*) and in the picture *to the right* is the result of the bombing, a shattered German plane tossed high up on the beach

THE SCENE ON THE SANDY BEACH AFTER THE R.A.F. BOMBS HAD EXPLODED

The First Actions of the German Rush Against the Netherlands

FAR IN THE NORTH WHERE DUTCH TERRITORY LOOKS ACROSS THE EMS

One of Germany's westward-flowing rivers runs along the northernmost edge of Dutch territory. It was not proposed to hold this district if Holland were attacked, but an isolated fort at Delfzijl, on the left bank, was reported to be holding out against German attack from across the river. Delfzijl is actually on the west bank of the Dollart. The place was held as a fortified position by the Romans. Ferry steamers in peace-time run to Emden on the opposite shore



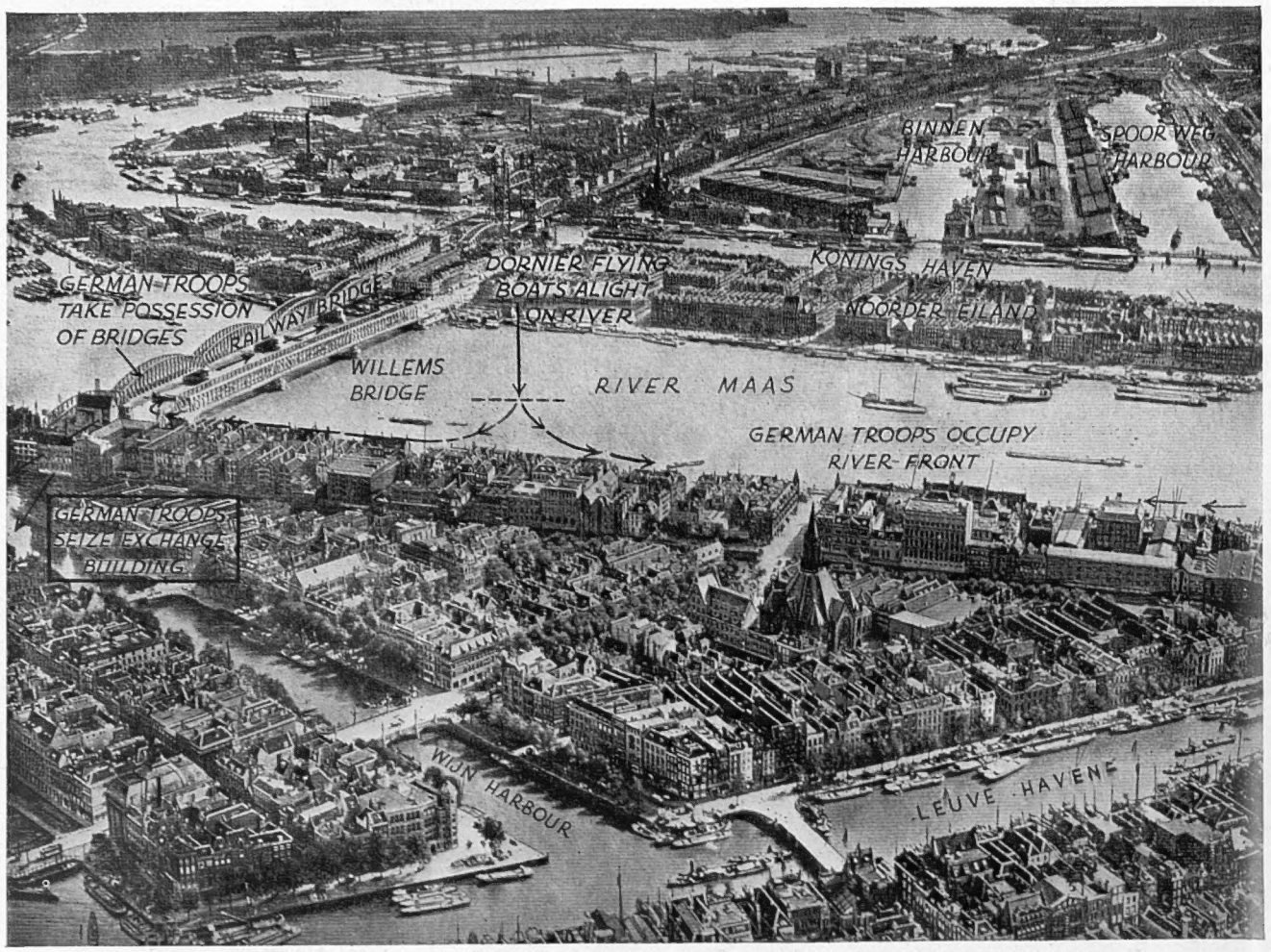
THE WRECKING OF THE WAALHAVEN AERODROME OUTSIDE ROTTERDAM: AN R.A.F. PICTURE OF THE BURNING BUILDINGS AND POCK-MARKED AIRFIELD

The struggle for the mastery of the Waalhaven Aerodrome has been one of the outstanding incidents of the opening days of Germany's fierce attack in the West. The enemy captured the aerodrome by plane early in the first attack. This stroke was promptly countered by the R.A.F., who bombed the aerodrome with such telling effect that it was practically put out of action and nearly all the buildings were set ablaze. Some idea of the amount of destruction wrought can be gained from the above picture, in which all the buildings are either burning or in a gutted state. There are numerous crater holes on the airfield itself. A camouflaged enemy machine is seen standing near one corner of the picture

ROTTERDAM

How Holland's Great Port Fell to Plane-Carried Troops

The attack on Rotterdam began with the alighting of flying-boats on the Maas River in the heart of the city and the landing of some 150 men at the Waalport Aerodrome some seven miles away. The soldiers conveyed by the Dorniers landed and took possession of the Willems Bridge without opposition, and enemy troops also occupied the river frontage known as "Boompjes." Later, there was a number of counter attacks by Dutch troops and the bridges appear to have been recaptured. Fighting, however, continued, and the enemy troops, after occupying a naval barracks, moved to a more solid building, the Exchange in the heart of the city—it is a large modern concrete erection. One account stated that a ship which came into the harbour some days before the German attack contained a number of concealed German soldiers. The final attack came from the south by way of the big Moerdijk railway bridge, north of Hooge Zwaluwe (*see* map, page 222)



WHERE THE ATTACK ON ROTTERDAM BEGAN: THE SCENE LOOKING TOWARDS THE BIG WILLEMS RAILWAY BRIDGE

FIRST PICTURE OF BRITISH TROOPS IN ACTION IN BELGIUM to reach "The Sphere" Office (Tuesday, May 14)

The rapidity with which the British force advanced into Belgian territory astonished the Belgians. "They are here," they shouted in astonishment, as an hour or two after the early morning attack by the Germans became known, the British column was on the road, proceeding towards the battle area with the precision of a train leaving a big railway station. "They moved like one great machine and in safety. Overhead R.A.F. fighters were keeping watch ready to smash any German attempts to repeat tactics practised in Poland and Norway of machine-gunning the advancing columns." Belgian liaison officers meeting the B.E.F. exclaimed "Formidable" on seeing the roads filled with tanks, guns and many weapons still on the Secret List. Not a single man of this British Expeditionary Force went on foot. Most of them travelled in convoy trucks, all of them equipped with anti-aircraft guns. Arrived at their destination, it is evident that units of this force came rapidly into action—for here they are in a "strafed" Belgian town, holding a street corner gun post

MAN versus MACHINE

The Impossibility of Getting High-Speed Fighters to Norway and its Effect on the Campaign—*By CHARLES G. GREY*

(Founder of *The Aeroplane*)

IF ever a campaign gave a convincing demonstration of the untruth of the maxim that in war it is the man that counts far more than the machine, our lamentable, though fortunately not disastrous campaign in Norway has given it.

The men of the Royal Air Force and of the Fleet Air Arm have been magnificent. Most of the machines which they have had to use have been quite good for the specific purposes for which they were designed. But because of lack of foresight in technical affairs, in spite of continued warnings, we have been compelled, as so often before in the history of England, rather than in the history of Great Britain, to improvise.

ESCAPE: The man coming aboard a British destroyer in this picture was the pilot of a German Heinkel bomber. His machine was attempting to bomb a British convoy of merchant ships. Destroyers sighted it and put up a barrage of fire with the result that the Heinkel was brought down. As it dived the pilot baled out with his parachute and British sailors brought him safely aboard after rescuing him from the sea

On the whole, our improvisations have done very well, but we have not been able to improvise high-speed fighters to fight at high speeds outside their radius of action. And for lack of high-speed fighters the British Army has been pushed out of the positions which it held precariously in Norway.

On the West Front, as we insist on calling our East Front along the Rhine, our fighters, albeit six years old in design, have proved more than a match for the German fighters, even those which are only a matter of two years old. And if we could have got supplies of those fighters up to Norway we could have held off the German bombers enough to let supplies of heavier armament through to our troops. But, because we could not interrupt the continual streams of bombers from Southern Norway and Denmark, they made the landing of tanks and heavy guns from our transports practically impossible.

In some places where we landed troops the quays or jetties were inadequate for the landing of heavy armament. But, judging by the photographs which have been published of Namsos, and the stories of the bombing of the ports, even if the quays had been adequate and had been equipped with the latest derricks the landing of the heavy stuff would still have been impossible.

The Royal Air Force made a gallant attempt to operate fighters. Competent people were sent to Norway to try to find places which could be used as aerodromes but, again reading between the lines, we can only gather that nothing better than frozen lakes could be found and that when we put aeroplanes on them the Germans bombed the ice. Apparently the only machines which we could use were Gloster Gladiator biplanes, presumably on skis. These are highly manœuvrable and magnificent in a dog fight, but they have not the speed to catch modern high-speed German bombers.

Just why the particular department which has the Yes or No in such matters should not tell the British tax-payer what type of aeroplane we were using I cannot imagine. The Germans who met them in the air would recognise them at once, so why should we not be told? The only assumption is that those who were responsible for the equipment of the Royal Air Force for the past five or ten years are ashamed of their lack of foresight. That is a ludicrous attitude because they were bound to be found out sooner or later, and they might just as well make open confession now.

The only alternative to flying Spitfires and Hurricanes off aerodromes in Norway was whatever could be done by the Fleet Air Arm, and, as I have said before, the North Sea is not a healthy place for such lightly-armoured craft as our big fast seaplane-carriers. We have not yet been told the full story of the *Courageous* or even the part of the oceans in which she was torpedoed. But the assumption is that she was farther away from German submarine bases than would be seaplane-carriers off the north-west coast of Norway.

In spite of this danger the Navy has been using its fighters in Norway, but as everyone knows, particularly the Germans, who have made a study of our air armament for years, the standard fleet fighter in these days is a two-seat monoplane, an excellent aeroplane called the Skua, made by the Blackburn Company, which is necessarily not as fast or manœuvrable as the Spitfires and Hurricanes, or as the Messerschmitt and Heinkel fighters.

The Skua has been photographed and detailed drawings and specifications of it have been published in the British technical papers months before the declaration of war, so there is no harm in mentioning the machine now.

The Admiralty is fully justified in their glowing eulogy of the work of the Fleet Air Arm which was published on May 4. The men have been splendid. In fact, their gallantry has been greater than even most of the personnel of the R.A.F. know. Unfortunately, some time must pass before the bravery of the Fleet Air Arm can be described in print. I hope that I may be the first to pay tribute to them.

I do not mean that individually the Navy are braver than the R.A.F., but certain of their work does definitely involve an extraordinarily high level of cold, calculated courage, and that by reason of the types of aircraft with which the Fleet Air Arm is necessarily equipped. Remember that everything that belongs to the Fleet Air Arm has to go down the lifts of the seaplane-carriers to the hangars below decks.

R.A.F. MAKE THE WAR'S LONGEST FLIGHT: The longest non-stop reconnaissance flight of the war was recently made over the sea in rain, wind and snow, when a Vickers Wellington, piloted by a New Zealander from Auckland, left an aerodrome in Scotland on a flight to Narvik and back. The aircraft covered well over 2,000 miles, mostly out of sight of land. It carried a crew of five and an officer from the Navy to assist in ship recognition. The crew consisted of first and second pilots, a sergeant-observer as navigator, a leading aircraftman as wireless operator, and an aircraftman as air gunner. All are members of the Royal Air Force New Zealand Bomber Squadron. The crew are seen studying the route of the flight

The whole situation in Norway, and the primary reason why we could not use our fighters, is summed up in one blistering sentence, as illuminating as a parachute flare, by a French writer, M. Colrat, of the Parisian paper *Excelsior*, who says: "If the privilege of the initiative possesses all the importance attributed to it by Mr. Chamberlain—and we believe that it is true—we must not, from respect for the law, leave it to the law's violaters."

Commenting on this *The Times* newspaper says "What opinion calls for is not brilliant failure but steady success." And referring to the French people it adds "It is simply that the great mass of opinion suffers from the healthy concern . . . that undue Allied regard for formalities should not continue eternally to load the dice in Germany's favour."

In other words, if we had not been so afraid of world opinion we should, as suggested in this paper in weeks past, have got to Norway first. And perhaps somebody who is better entitled to write on international affairs than I am will explain what precisely constitutes world opinion in these days, apart from the opinion of the United States, which is chiefly concerned with making money out of other people's wars.

There are, in fact, several ways in which we could have operated high-speed fighters in Norway, but they are all so fantastic that nobody is likely to use them for years to come. One, which certainly ought to have been in use several years ago, is that old pet idea of mine, the mobile catapult. I pointed out between ten and fifteen years ago that we must some day be in a campaign where we could not even get reasonable advanced landing-grounds, and so we must have mechanical means of launching our machines. The machines themselves must be designed so that they land slowly and not burn up if they have a minor crash in trying to land on a road.

Two other methods are less fantastic than that and might be brought into action in six months from the time in which their organisation is started, if there were somebody who was given a free hand and permission to drive men and production forces to the limit.

We may even reflect that if we had not scrapped our airships because of our lamentable economy campaign, after the burning of the R.101, we might have been able to take fighters near the Norwegian coast slung under our helium-filled Diesel-driven non-inflammable airships, after the American fashion, and might have dropped them there with full tanks so that they could do a certain amount of fighting and still have enough fuel to fly home.

I also recall a brilliant American improvisation of fifteen years ago or more. The Curtiss Hawk was about the best fighter of the period. The U.S. Army foresaw that they might want to transport squadrons of Hawks from one side of the continent to the other. There was no room inside the machine for more fuel tanks, so they had auxiliary tanks made to fit under the belly of the machine so that the Hawks could fly between the Atlantic and the Pacific with only two stops to refuel; and, to the surprise of the designers, they found that the auxiliary tanks—which were properly streamlined towards the tail—added 5 m.p.h. to the speed of the machine.

Our existing long-range fighters, Blenheims, with guns in front, have done excellent work, but their range with an adequate supply of ammunition only allows them to attack nearby places, such as Stavanger aerodrome and the Bergen seaplane base. The voyage to Trondhjem and back, plus worth-while fighting time in Norway, is beyond the capacity of any long-range fighter if it is to be manœuvrable enough to fight when it gets there.

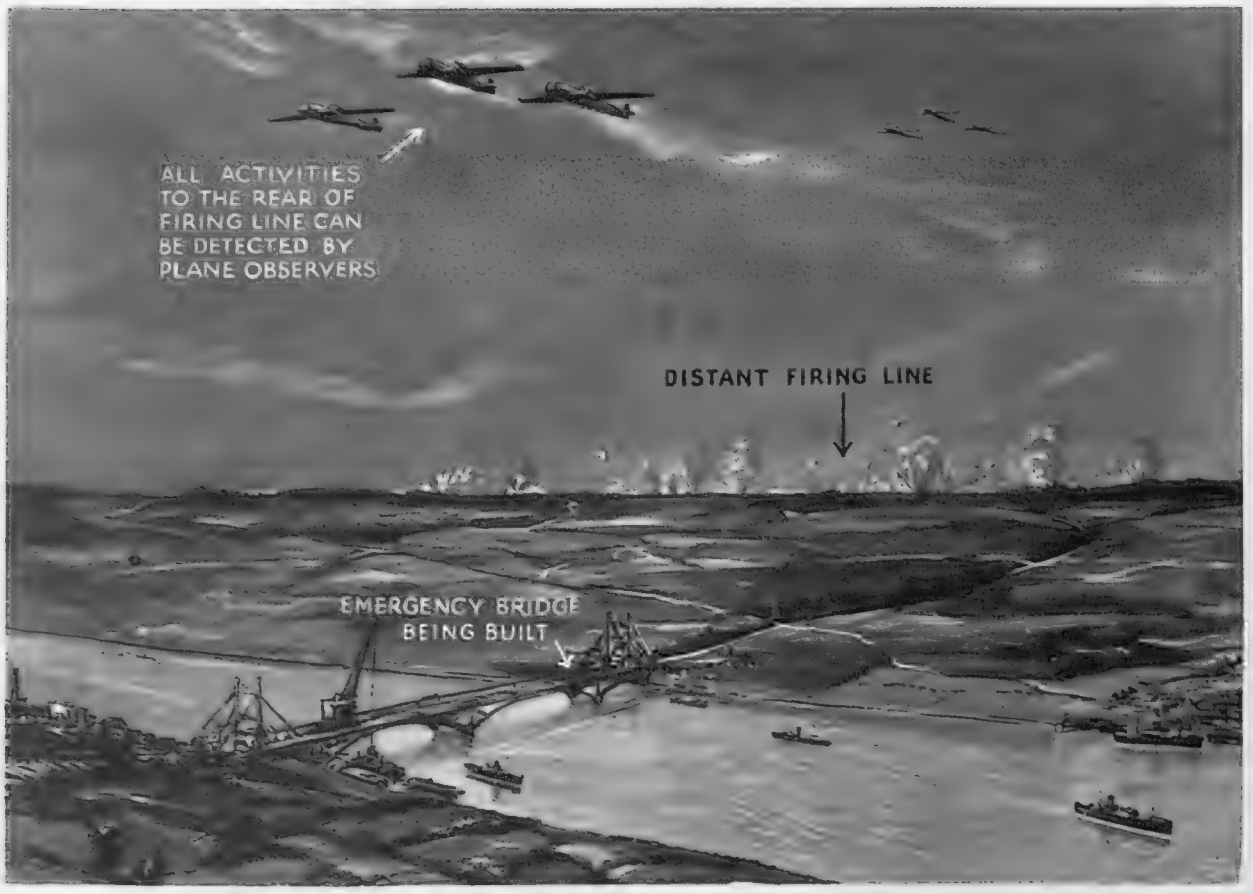
Whichever way one looks at it there is no doubt that if there had been enough British fighters in Norway the German bombers could not have operated as they did and our people would have been able to land their heavy armament on the small quays of the small harbours available.

The Germans were favoured by the fact that in spite of, or even because of, the mountains the roads in Norway are good, and, although a few bridges were blown up, they were excellently suited to carry the German mobile weapons. Here again we might have stopped the German heavy armament and supply trains if our bombers had been able to operate over the coastal mountains into the two main valleys along which the Germans advanced. There must be places in some of those valleys where one well-placed bomb of 1,000 lb. would block the road for months. But to operate those bombers we should have wanted aerodromes in Norway bigger than those which would have been needed for our fighters.

Although with adequate foresight and ingenuity we could have had fighters at work, and might still do so within a few months, the fact remains that, but for our "undue regard for formalities," we might have had the whole of Norway if we had struck in time.

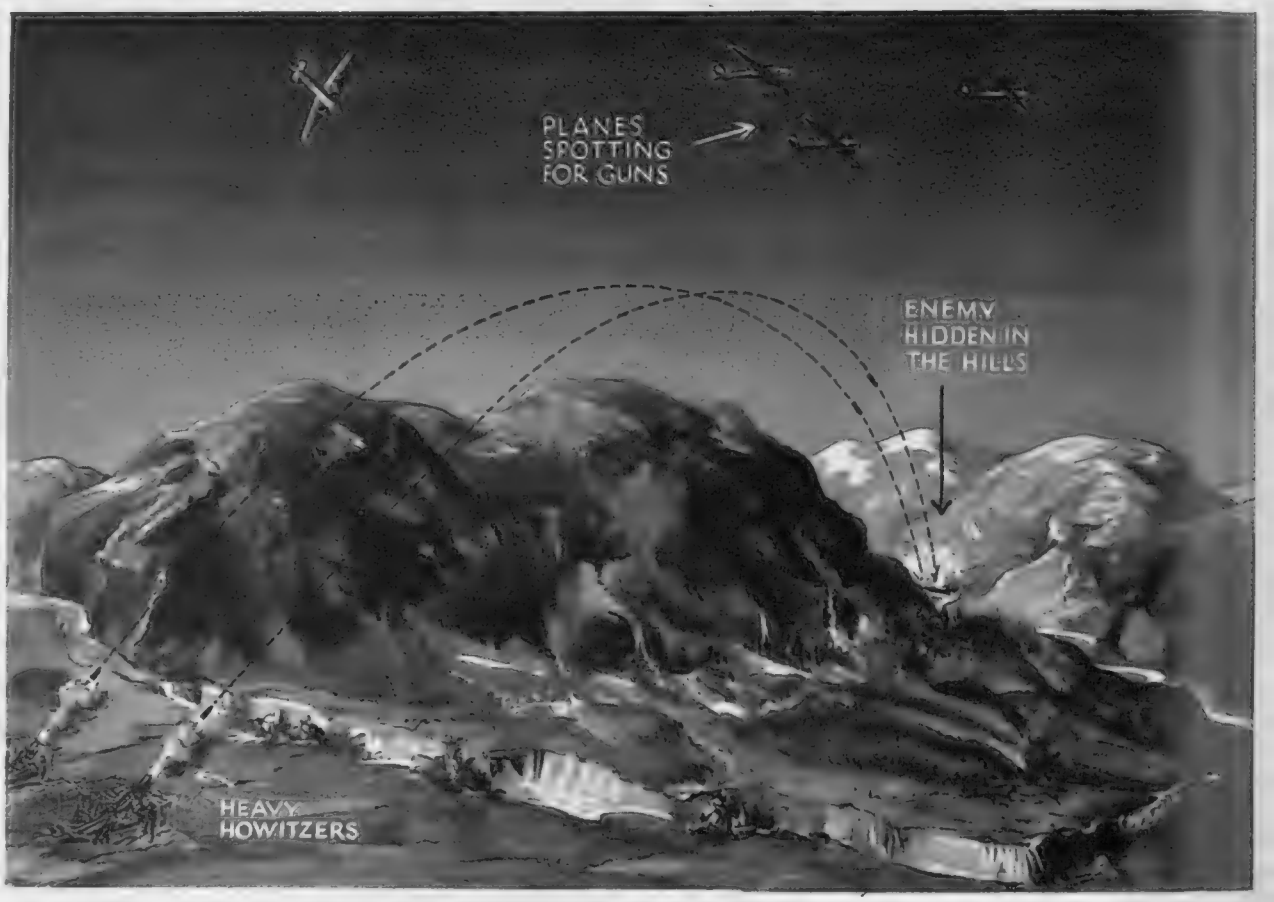
THE AIR

There is no intention here to magnify the extent to which the Air Arm has influenced Naval and Military operations. The purpose of these pictures and notes is to set forth some of the more unquestionable ways in which the Air Arm has either modified or



SECRECY IS DESTROYED IF ENEMY AIRCRAFT CANNOT BE FORCED BACK: Thirty years ago it would have been possible to have built this bridge without the enemy being aware of what was going on if the rising ground hid the river from his view. Now it would be impossible. The eyes and cameras in the air would note the new structure and soon bombers would attempt to destroy the work

THE PROBLEM OF AIR SUPREMACY: A is separated by a strip of no-man's-land C. in the air. If one were to gain unques the preparations for final victory and in "strafing" which air ascendancy makes balanced, the fight would seem to



THE AIR ARM HAS MODIFIED ARTILLERY FIRE: The spotting plane has made it possible to fire upon hidden targets in high mountainous country, the plane sending back information by wireless, enabling the gunners to correct the range

"All through the ages one can see the struggle of man for superiority over his neighbours in three things —range, speed, and invincibility. Primitive man used his brains, little as they were then developed, to increase his range in his struggle against wild animals and men by making a knife out of stone. His descendants tied it to the end of a stick which we call a spear, and then later threw it as a javelin, until the limit in weight of projecting power was reached. The following generation invented the bow and arrow, a smaller projectile but of much greater range. Centuries later came gunpowder, followed by high and smokeless propellants and rifled guns. Lastly has come the aeroplane, which can carry the projectile, torpedo or bomb, thus lengthening the range from miles to hundreds of miles . . .

(Continued below on right)

. . . The truth, when considering the relative importance of sea and air power, is found between the extremes of opposite opinions. There are people who state that the Air Force is not needed if we have a sufficently strong Navy; others who think that we need no Navy if we have a great Air Force and a strong Army. Neither of these is right. We need all three services in order that our Empire can be secure and live in peace."—*Admiral Mark Kerr, C.B., on the influence of Air on Sea Power*

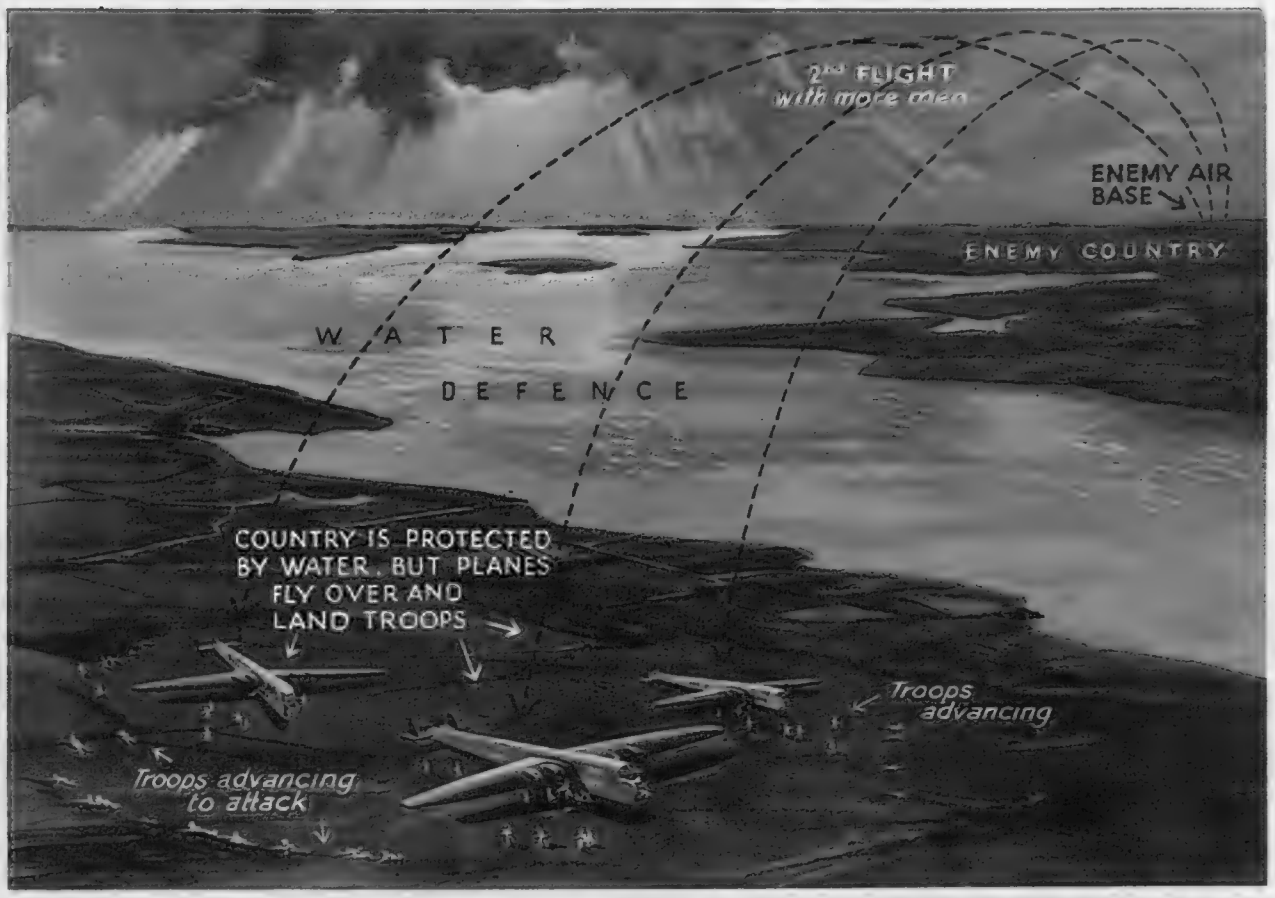
On left—

PRIOR TO THE GREAT WAR, it was possible to move columns of men unseen by the enemy. Necessary concentrations could take place, but to-day the eyes of the enemy may discover them and the columns themselves may be in immediate danger from an air bombardment which would drive them instantly to seek cover

WEAPON

drastically challenged the methods of offence and defence on land and sea. It would seem that in many cases a moderate air attack can be met; it is the whirlwind attack which calls for a serious reconsideration of the situation

engaged in battle with B, and they are Each tries to gain ascendancy over the other tioned ascendancy, secrecy is secured for the meantime B suffers the bombing and possible. If the two forces are nearly be a continuous and prolonged one



THE CARRYING OF TROOPS BY AIR: If the air defences of a given country are not sufficiently strong to check or seriously embarrass the plans of a neighbouring country, the possibility of troops being landed in spite of water defences is a real danger. The danger to the invaded country would have to be met by a very special system of defence if it were to counter successfully such an attack

AIR ATTACK HAS RENDERED DANGEROUS ANY LANDING OPERATIONS NOT SUPPORTED BY THE HEAVIEST A.A. DEFENCE: The supply ships are unable to manœuvre as at sea in meeting an attack from the air and the supplies have not yet reached positions where they are effective against the enemy. A.A. defence by land and sea is obviously necessary if the attacks are to be beaten off while the landings are taking place

The entry of War into a third element, the Air, has had a far-reaching effect. In the earliest days the sea presented a barrier which protected countries from immediate attack, but that condition of affairs was altered when the first aviators flew across water. It is now, as we know, possible to reach a given country by air and to punish its vital military points if its defences are not of the strongest. Professor A. M. Low points out, in his discussion of the influence of air warfare, that "quite a large number of people look upon air defence as a matter of personal safety and do not realise that to render air attack ineffective has the same importance to-day as had the mastery of the seas during the Napoleonic Wars." The present condition of things has arisen gradually. In the beginning of the Great War we had 200 planes. A pilot or observer would take up a rifle or a revolver. It was later that these strange machines began bombing front-line positions

NAVAL TACTICS AND THE AIR ARM: The Air Arm has modified naval tactics for offence and has at the same time rendered operations under certain conditions more hazardous than formerly, although the defences of the Naval Arm have risen in a manner which severely punishes impudent attack. The eyes of a Fleet have been extended some 300 miles by the use of its own planes; on the other hand, the various vessels comprising the Fleet are liable to injury from the "lucky shot"

RETURN from NORWAY

The Evacuation of the Allied Forces

THE BOMBING OF H.M.S. "BITTERN" OFF NAMSOS—THIS PICTURE, TAKEN BY A MEMBER OF THE CREW, SHOWS THE SLOOP OFF THE NORWEGIAN HARBOUR JUST BEFORE SHE WAS SUNK AS THE RESULT OF A DIVE-BOMBING ATTACK BY GERMAN AIRMEN

SURVIVORS OF H.M.S. "AFRIDI," THE DESTROYER SUNK WHILE ESCORTING TROOPS AFTER THE WITHDRAWAL FROM NORWAY, ARRIVING AT THEIR HOME PORT

SURVIVORS OF H.M.S. "BITTERN" LANDED IN NAMSOS FROM THE VESSEL WHICH RESCUED THEM AFTER THEIR SLOOP HAD BEEN SUNK

These pictures were taken by one of the survivors of H.M.S. *Bittern*, the British sloop sunk in a dive-bombing attack off Namsos during the withdrawal of British troops from Norway. The survivors of this aerial attack have now arrived home in company with the survivors from H.M.S. *Afridi*, the British destroyer which was also sunk by bombs on the same occasion and on the same duties

ANOTHER PICTURE OF SURVIVORS FROM H.M.S. "BITTERN" IN THEIR SEA-GOING KIT AFTER THEIR LANDING IN NAMSOS

THE ALLIED TROOPS FROM NORWAY WERE MET AT A NORTH SCOTTISH PORT BY GENERAL SIR EDMUND IRONSIDE: ABOVE ARE SEEN GENERAL CARTON DE WIART, V.C. (COMMANDER OF THE NORWEGIAN FORCE); GENERAL IRONSIDE; GENERAL MITTELHAUSER AND GENERAL AUDET, IN COMMAND OF THE FRENCH TROOPS IN NORWAY

GENERAL CARTON DE WIART, V.C., JUST RETURNED FROM NORWAY, WITH MEMBERS OF THE FRIENDS' AMBULANCE UNIT WHO WENT INTO NORWAY FROM FINLAND

FRENCH TROOPS, EVACUATING FROM NAMSOS, TAKE IT EASY ON THE DECKS OF A BRITISH WARSHIP AS THEY LEAVE NORWAY FOR A SCOTTISH PORT

ON ARRIVAL IN SCOTLAND—A FRENCH SENTRY STANDS GUARD OVER THE PILED-UP KITS OF HIS COMRADES ON THE QUAYSIDE AFTER THE EVACUATION OF THE CHASSEURS ALPINS FROM NORWAY TO BRITAIN

DISEMBARKING FROM THE TROOPSHIP—FRENCH CHASSEURS ALPINS ARRIVING AT A NORTH SCOTTISH PORT AFTER THE EVACUATION FROM NORWAY: THEY WERE LATER MET BY GENERAL IRONSIDE AND BY THEIR OWN COMMANDING OFFICERS

THE PARACHUTE TROOPS of GERMANY: Employed by the Enemy in the Invasion of Holland and Belgium

THE PARACHUTE TROOPS DON THEIR EQUIPMENT PRIOR TO EMPLANING

The military device of dropping armed soldiers from aeroplanes was first developed by the Russian (U.S.S.R.) army. It was for some time regarded as a stunt turn suitable for army manœuvres. Only recently has it been put to test of actual warfare, first by the Russians themselves in Finland, where it was not a success, and later in Norway by the Germans, where it had greater chances of success. On Friday of last week (May 10) the Germans again used these troops to distract the Dutch defence by the formation of little pockets of men behind the water-line defences; a number of such landings were reported from Maarsen and Sliedrecht, and near Delft and Dordrecht. A party of 150 parachutist troops were reported to have landed at Waalhaven, principal airport of Rotterdam

ARMED EACH WITH A PARACHUTE, THESE GERMAN SOLDIERS ENTER A BIG TROOP-CARRYING PLANE

These men are shown wearing their regular German uniforms, but in actual war conditions the Germans are, of course, assuming a disguise suitable to the country invaded. This was reported to have occurred on the opening day of the attack upon Holland and Belgium. It is clear that a great number of countryside watchers will be required to meet this new form of attack

THE WORK of the BOMBER-OBSERVER

A Vital Member of the Crew of a Bombing Aircraft. His Task Described by NOEL THOMPSON

A Special Sphere Section

The subject of Mr. Thompson's article lies prone in a plane built more or less on these bomber lines—a long, dagger-like fuselage, carrying a forward gunner, and another gunner in the tail section.

The bomber-observer is situated somewhere in the fuselage between the great wings, which carry two huge engines. He looks through a glass window; his bomb traps are farther astern

I DARESAY in the past few weeks you have noticed a particularly bright star on clear nights. That is Venus, almost untwinkling in its clarity, so that members of the public have even been led into thinking it might be an illuminated barrage balloon!

I studied it as I walked home to write this article (incidentally it will be at its brightest on May 20) because earlier in the day it had been brought to my notice unexpectedly during a visit to the headquarters of a Bomber Squadron.

A pilot and his observer who had recently made several trips to Stavanger and Bergen, whereby the aerodromes there had been "done a bit of no good to," were answering questions I put about the co-operation between them necessary in bombing. Theirs had been night attacks.

"Of course, Venus was a great help," remarked the pilot. "For a moment I suspected a hidden meaning, but the observer came to my rescue by explaining that the planet, millions of miles away, had probably increased the visibility of their targets on clear nights by anything between 500 and 1,000 feet, that is, increased the height at which they were visible.

But to return to the question of co-operation and teamwork. The pilot is captain of the ship, and in conversation is usually referred to as the captain.

To him naturally go all wireless messages received and all reports from his crew. He is as dependent on their co-operation as they are on his skill as a pilot. It was emphasised to me that a bomber crew, as with a chain, is as strong as its weakest link. Which explained to me the pride and affection in the voice of a crack pilot to whom the Commanding Officer introduced me. He and his crew, he said, have worked together for seven months. He would not swop one of them for the world.

The pilot gives the order to open the bomb doors, selects the correct bombs, while the observer must pull down the right switches and then check them all over again. The pilot's task is then to keep the craft absolutely level and steady until he gives the command "dropping, dropping, GO," repeated if he is straddling the target by bombing singly. Here again it is a question of perfect timing and co-operation between bomb aimer and pilot.

But I must go back to the conference before the flight takes off. At this it is decided at what height the bombs should be released, what type of bombs should be used, and the whole tactics of the attack are thrashed out. Local weather conditions may necessitate a change in height, but the method of attack may be varied.

Co-operation between the observer-navigator-bomb-aimer and the pilot is often almost like telepathy, but there is one recent instance of which I was told where it was not. However, it all worked out for the best.

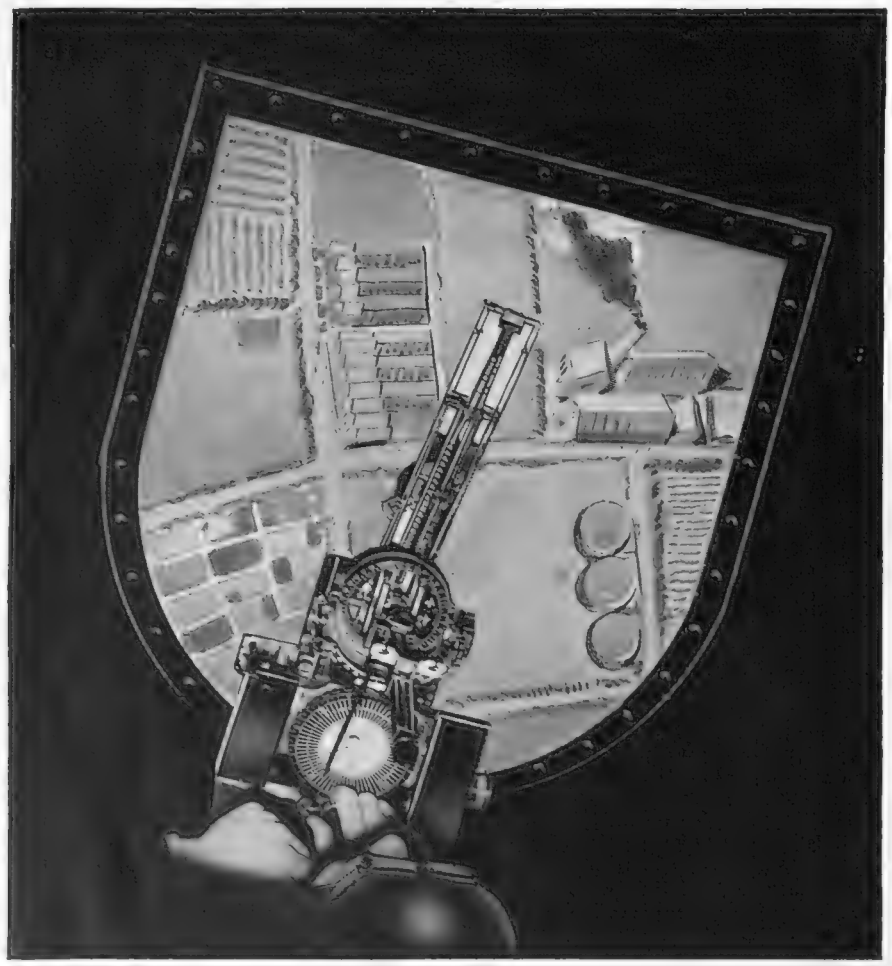
It was during a raid on two cruisers reported by reconnaissance aeroplanes to be skulking in a Norwegian fiord. The twenty-six-year-old squadron leader, who was recently awarded the D.F.C., approached at 7,000 ft. He decided on a second attack and made for a fiord to lie doggo for ten minutes. Then the pilot made off inland and climbed to attack from an unexpected angle. This time every gun could concentrate on him, but he dropped his bombs, one landing within 20 ft., and then made for home. The adventures of the crew were not over. They met a Dornier returning from England; turned and gave chase and at 50 yards range as they flew side by side the bomber sent the Dornier crashing into the sea. To complete the day they sighted a sinking destroyer and stood by until the crew were rescued. And so safely home, with considerable shot holes, including one through the blade of the propeller, but the crew were all intact. Can you wonder that after adventures like that the crew work wholeheartedly in the team spirit?

(Continued on next page)

THE BOMBER IS ALSO AN OBSERVER AND RECORDER: The bomber airman is a man of many parts. If all is quiet he can do some useful photographic work with a fearsome-looking camera, besides using his eyes on all the country beneath him. He works in close conjunction with the pilot who is, as it were, the captain of the ship

THE FASCINATING PROBLEM OF A DROPPING BOMB: The fall of a bomb through the air is anything but a palatable subject with citizens of towns in danger areas, but to the mathematician it is a subject of the keenest interest. Newton wrote that "Every body continues in its state of rest or of uniform motion in a straight line unless it is compelled to change that state by forces impressed thereon." That was when he was wondering why apples and other objects fall to the earth's surface. Newton's contentions apply to a falling bomb. It is, at the moment of release, travelling forward at the same speed as the aeroplane, here presumed to be 200 m.p.h. Gravitation begins to act on the stream-lined bomb. The result of the two forces is a curve which can be calculated: it should land the bomb on the earth immediately below the aeroplane (second position). In this case the bomb has been released one and a third miles ahead of its target

THE WORK OF THE BOMBER-OBSERVER: A SPECIAL SPHERE SECTION



WHAT THE BOMBER-OBSERVER SEES WHEN OVER AN ENEMY AERODROME: The bomber-observer is lying prone in his little cubicle on the bottom of the fuselage. In front is a glass window and his sighting mechanism—no longer a piece of wood and some string as in the early days. Immediately before him is the sighting apparatus, compass, wind allowance instrument and so forth. In his right hand is an electrical bomb releaser. When he presses the little knob, a bomb from one of the racks behind him falls through one of the now open doors

A BOMB JUST RELEASED FROM ITS RACK IN THE PLANE: At the moment of relea continues to travel at the same speed as the plane of which a second before it had a part. The plane is travelling at 200 m.p.h., the bomb is moving forward at a spe per second; air pressure and gravitation will at once begin to assert themselves a will then take up its curving course towards the earth

Now for the actual bomb dropping. An observer gave me a rough calculation of the fall of a bomb, which naturally does not take into calculation the effect of the wind. The distance at which it should be released from the target is the speed multiplied by the time of fall, and the time of fall is roughly a quarter of the square root of the height.

He gave me an example. If the height is 10,000 ft., a quarter of the square root is 25. At 200 m.p.h. the aeroplane is travelling at 294 ft. a sec., so that the sum is 294 by 25, which equals 7,350 ft., or a little over a mile and a third. At 300 m.p.h. it would be over 2 miles; at 200 m.p.h. at 20,000 ft. it would be 2½ miles away that the bomb would be released.

But I have said nothing as yet of another main duty of the observer or second pilot, the question of photography. I am not dealing with the purely reconnaissance flights but with some of the wonderful pictures we have recently seen taken from bombers.

The vertical camera has been screwed into position by an expert before the Wellington takes off, and set for the height and speed according to fixed tables. It has an F24 6-in. lens and the magazine carries film for 125 exposures which will take pictures five inches square. This magazine can be changed in a matter of seconds. The camera can be set to expose at regular intervals (as compared with the mechanism used in the last war, when the observer had to work with stop watch in hand, timing the intervals between pictures).

To make sure that there is continuity in the pictures there is a 60 per cent. overlap in the direction the aircraft is travelling, and each picture as it is taken is marked with a serial number, or the exact time by a clock through an arrangement of a prism and a lens. This means that when the photographic section receives the magazine for development there can be no risk of the pictures getting out of order. Altogether the photography is the least of the observer-second pilot-navigator-air bomber's worries. In many cases the rear and front gunner both have cameras, which are not attached, but are held by hand. Their duty is to obtain oblique photographs of prominent landmarks or the target both before and after the attack. Oblique photographs throw a shadow and often reveal things which the vertical camera does not.

Do you remember two magnificent pictures recently, one showing a bomb hitting a surfaced U-boat and the next showing the scurry of water as the submarine went to her doom? They were taken with a hand-held camera and showed as good an example of team work as I can conclude with. The pilot got dead on his target, the bomb release was perfectly timed, the gunner got the proof with his camera. People have asked why there was not an intermediate picture of the submarine actually sinking. The answer is that at the speed the plane was diving only the hit could be recorded. The pilot put his plane into a tight turn and raced for another picture, but so quickly did the U-boat sink that by the time he was over the spot only the flurry of water remained.

Before I left the headquarters, which is situated amid pleasant surroundings, I saw a report by a very distinguished scientist and doctor on picking men for the R.A.F. He emphasised and devoted one long section to the importance of games; not only for the physical fitness they bring, equally important is the team spirit developed, the split second decision of hand, mind and eye they require, and not least the sense of humour necessary under difficulties.

Can the mass routine training of the German Air Force equal the team spirit of the R.A.F.? I think we have already proved that it cannot.

BOMBING UP: A scene on an R.A.F. aerodrome in France. The large bombs are hauled along by means of these low trolleys to be transferred to the racks of the waiting bombers. The tremendous weight of these bombs is evident by the number of men required to pull them along the ground. The positions they will occupy in the plane are shown opposite

THE SIGHTING APPARATUS AS THE CAMERA SEES IT: Here is a close-up of the bomber-observer with the sighting apparatus in front of him. Its various parts are indicated and further explained in the diagram given on the opposite page. The bomb release and knob are also indicated

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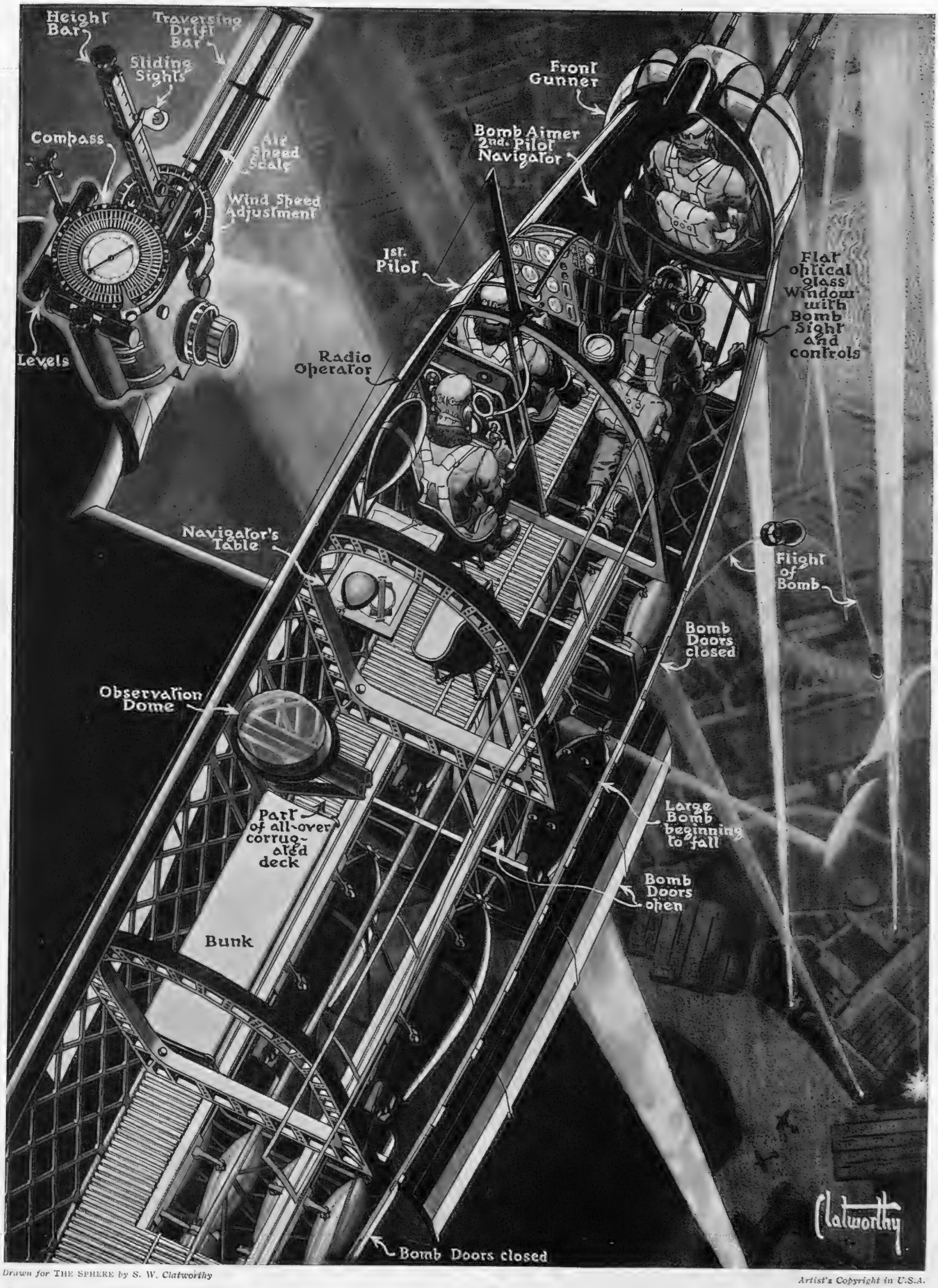


The pilot and radio operator sit on the left. The bomber observer lies on the right. The navigator has a seat and table on the left

The bombs are disposed in racks which facilitate movement towards the doors. The door is a series of flaps arranged as shown on the right

Drawn for THE SPHERE *by S. W. Clatworthy*

Artist's Copyright in U.S.A.

A SPECIAL "SPHERE" DIAGRAM SHOWING THE METHODS EMPLOYED IN LAUNCHING A BOMB FROM AN R.A.F. BOMBING PLANE

This special diagram shows a Wellington engaged in precision, or high-altitude, bombing. The pilot flies straight and level. The bomb-aimer lies prone, releasing the bombs as his sights come on the target. Certain details of the bomb sight are inset. Before the actual bombing, adjustments are made on it for height, speed and drift of the plane and speed of wind. In effect, the bombs are usually slipped some two or so miles short of the target, the plane's momentum carrying them forward in a curving drop which this instrument accurately predicts. The crew is varied according to conditions. Usually there is one addition to the personnel shown—a rear gunner.

THE BOMBING

—And the Destruction of the Town by

NAZI PLANES WERE STILL BOMBING NAMSOS WHEN THIS PICTURE WAS TAKEN: PARTS OF THE TOWN NEAR THE WATERFRONT ARE ALREADY IN RUINS

THE HARBOUR OF NAMSOS DURING A BOMBING RAID, NAZI ATTACKS. THE GERMANS AT FIRST ONLY WENT ON WITH THE DESTRUCTION OF THE WHOLE

WORKERS STAND BY HELPLESSLY WHILST THE BUILDINGS OF THEIR TOWN BURN: LATER THE GERMAN BOMBERS, HAVING DISPOSED OF THEIR LOADS, BEGAN TO MACHINE-GUN PEOPLE IN THE SHATTERED STREETS

STREET SCENE IN NAMSOS, SHOWING AN A.R.P. AMBULANCE AT ONE OF THE CROSS-ROADS. CLOUDS OF SMOKE ARE RISING FROM THE BURNING BUILDINGS AFTER THE PASSAGE OF THE HORDES OF NAZI AIRCRAFT

BEFORE THE EVACUATION—FRENCH TROOPS PILE UP SKIS, STORES, AND OTHER EQUIPMENT FOR BURNING TO PREVENT THEM FALLING INTO THE HANDS OF THE ENEMY. IN THE BACKGROUND IS YET ANOTHER BUILDING FIRED BY THE NAZI BOMBS

HEROIC NORWEGIAN A.R.P. WORKERS, ACTING AS STRETCHER BEARERS, RUSHING INTO ACTION AS THE BOMBERS ROAR OVERHEAD. BOTH INCENDIARY AND HIGH-EXPLOSIVE BOMBS WERE USED IN THE GERMAN ATTACKS

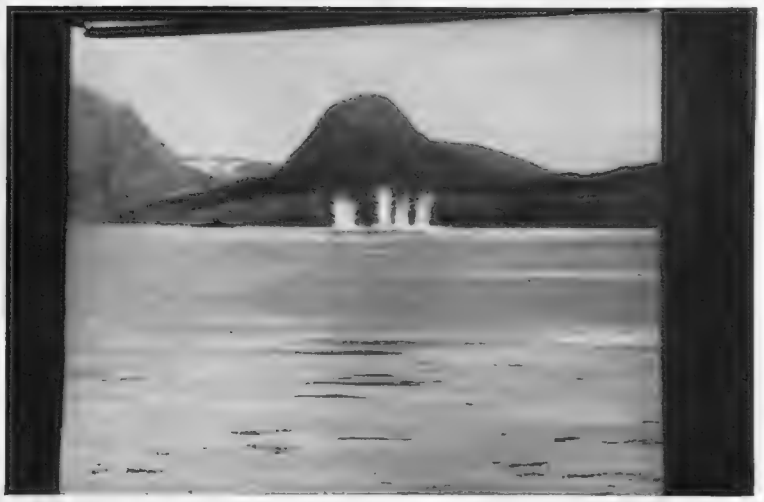
OF NAMSOS

Hordes of Enemy Bombers

DESERTED AND SHATTERED BY MERCILESS ATTACKED MILITARY OBJECTIVES, BUT SOON TOWN WITHOUT ANY DISCRIMINATION

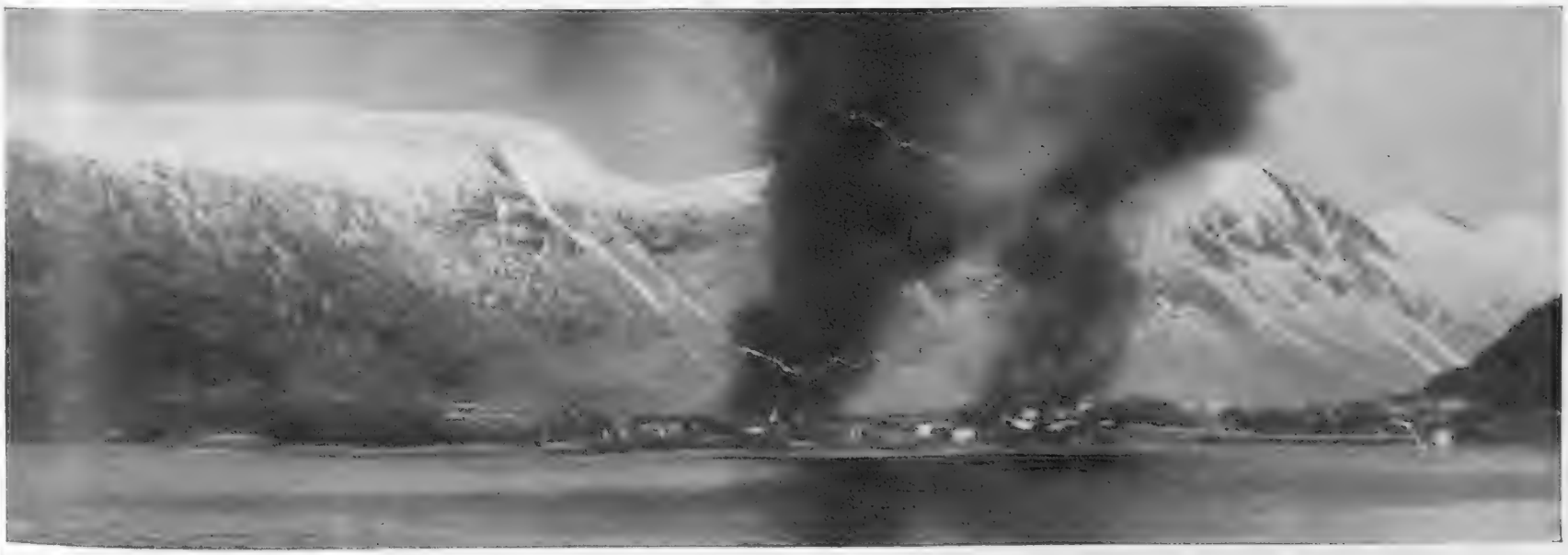
THE AWE-INSPIRING SCENE AT NIGHT—THE HOUSES OF NAMSOS IN FLAMES AS THE RESULT OF INCENDIARY BOMB ATTACKS

THE ATTACK ON ANDALSNES: NAZI BOMBS FALL SHORT OF A BRITISH NAVAL ESCORT VESSEL NEAR THE SUGAR-LOAF MOUNTAIN DURING THE AERIAL ATTACKS ON ANOTHER OF THE TOWNS EVACUATED BY THE BRITISH FORCES IN NORWAY



TAKEN FROM A HUT BY THE FIORD AT ANDALSNES—ANOTHER PICTURE OF THE BRITISH NAVAL VESSEL DODGING THE NAZI BOMBS

These two remarkable pictures come from Andalsnes, which, like Namsos, bore the full brunt of powerful German aerial attacks. A salvo of Nazi bombs is seen dropping short of a British escort ship helping to take troops up the Fiord, churning up the water at her stern. This ship, however, came through without a single hit, owing to the Commander's masterly handling of his vessel



HUGE CLOUDS OF BLACK SMOKE RISING FROM THE LITTLE NORWEGIAN TOWN OF ANDALSNES WHERE BRITISH TROOPS LANDED UNDER HEAVY BOMBARDMENT FROM THE ENEMY. TWO AMMUNITION DUMPS (HERE SEEN SMOKING) WERE SET ON FIRE BY THE NAZI BOMBS SHOWERED ON THE TOWN. LATER ANDALSNES WAS EVACUATED AND THE BRITISH TROOPS WERE SAFELY TRANSPORTED BACK TO A SCOTTISH PORT

THE DUTCH TERRITORY INVADED ON MAY 10

THE DEFENCE RIVER OF NORTHERN HOLLAND — THE YSSEL, WHICH WAS REACHED BY THE GERMANS ON MAY 10

It was planned that the north-eastern section of Holland, which was without a natural line of defence, would be surrendered to the enemy. The river runs into the Yssel Meer (old Zuider Zee) on its eastern side near Kampen. The river flows by Arnhem, Deventer and Zwolle

MILE UPON MILE OF THIS TYPE OF COUNTRY FACED THE INVADER

The whole of the wide polder country of north and central Holland is dotted with cows and horses. It would be very difficult to make a forced landing. The ground is flat, but generally very soft and traversed by innumerable little waterways; and so is not so easy for landing purposes

A LAND OF A THOUSAND BRIDGES: A TYPICAL BIG RAILWAY BRIDGE IN NORTH HOLLAND

Attack from the land offered many obstacles to the German advance: these difficulties were evidently intended to be overcome by a massed air attack which would overcome internal resistance

AT THE NORTHERN EXTREMITY OF HOLLAND'S WESTERN MAINLAND—PART OF THE NEW RECLAIMED TERRITORY

The formation of the new dam across the upper end of the old Zuider Zee took on a new aspect last week. It suddenly became a possible way of entry for enemy troops despite that this possibility had been presumably provided for. This view includes in the foreground some of the dykes which protect the new polder land behind the dam

A DUTCH ANTI-TANK BARRAGE SHOWING A BIG RAILWAY BRIDGE IN BACKGROUND

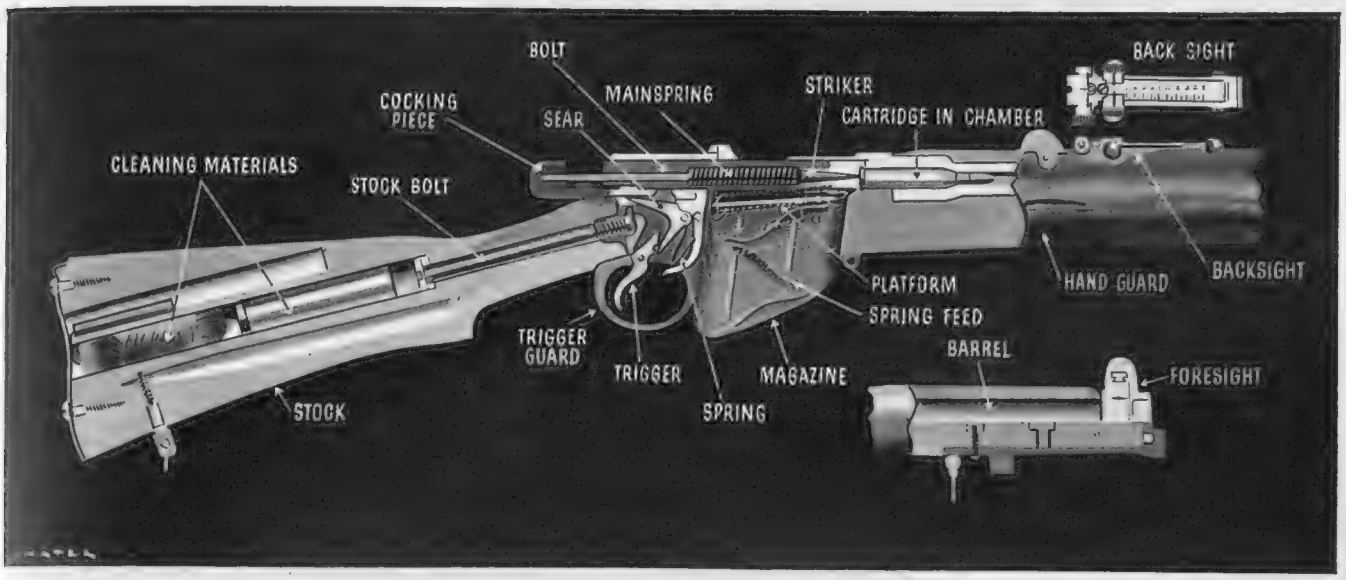
Every entrance to Eastern Holland was guarded in this way before Germany's advance took place in the early hours of Friday, May 10. Steel spear-heads protruded from roadways, and bridges were mined ready for immediate destruction as conditions required

THE ARMING OF THE INFANTRYMAN:

A Special Sphere Section

Describing How He Has to be an Expert in Handling THE RIFLE THE BREN THE GRENADE THE MORTAR and the BAYONET

By *Captain Donald Anderson*



THE WELL-TRIED BRITISH SERVICE RIFLE IN SECTION: The S.M.L.E., otherwise the Short Magazine Lee-Enfield rifle, has stood the test of hard battle for fifty years. No foreign type has bettered it. In its main form it came into being after the South African War, when the barrel was shortened to suit all services and the magazine containing five cartridges was introduced. The diagram shows its main features. One cartridge is in the chamber; others are in the famous "five rounds rapid" magazine

Whatever weapon it may be a soldier's principal duty to serve, he still needs a one-man weapon for his personal defence, and for use if his principal weapon fails through enemy action or mechanical breakdown. For the great majority of soldiers of the British Empire the rifle is the personal weapon; while a few, such as machine-gunners, carry pistols

MOST British defeats have been caused by bad generalship: most British victories have been very largely contributed to by the superior skill-at-arms of the British infantryman. This superiority in the use of weapons is embedded deep in history. Every school-boy knows how English archers destroyed the French chivalry at Cressey; every student of tactics knows how the musketry volleys of the Foot Guards and Colborne's 52nd Light Infantry threw back the last assault of Napoleon's Guard at Waterloo. (We can now feel grateful to the evolution of history in that Frenchmen will never again feel the well-directed weight of English lead.)

In the minds of the ignorant the infantryman is little more than a piece of foot-slogging cannon fodder. Wiser men know that he has to be the master of many arts. He must acquire an eye for country as highly-developed as a huntsman's or a poacher's, ability to take advantage of ditches and ridges and bushes in coming upon his enemy unobserved. He must have learned how to co-operate with his fellows so that each man's efforts help the others forward. He must be an accurate judge of distance and wind velocity. He must be skilled in the use of many complicated weapons. He must be able to drive a motor-car.

It takes any soldier about six months to become fitted into the rhythm of the Army. After that foundational training, eighteen months are reckoned as the time taken up in making an all-round infantry soldier, whereas three months has been considered long enough for an artilleryman.

To be completely trained, a modern British private must be competent firstly in the use of the following weapons: the rifle, Bren light machine-gun, 2-in. mortar (the 3-in. mortar is a specialist's job), hand grenade, bayonet, and also the pistol, the anti-tank rifle and Thompson sub-machine-gun. A truly formidable list of machinery to master! We here consider the first category.

The end in view in weapon-training is so to accustom the man to every circumstance and combination of circumstances which may arise in war, that he reacts to them correctly without having to think what to do next; for the stress of action leaves little time or energy for pure thinking. Success on the battlefield comes from the workings of trained instincts.

Let us imagine, to take an extreme example, that a Bren-gunner is lying in a cold and muddy field with his weapon at his shoulder. Shells are shaking the ground near him. He has marched 20 miles that day, and had no sleep the night before. His physical and mental fatigue is further burdened by pain from a bullet in his leg. Towards him the enemy is advancing in small groups by short rushes. Now on his left front, now on his right front, three or four men jump up out of a shell-hole and dash forward a few yards to fling themselves down again in a nearer shell-hole.

If he fails to swing his weapon on to each of these fleeting targets and reduce its strength by a well-aimed burst of fire, his own chance of survival is by that much reduced and the position he is helping to hold is correspondingly imperilled. Suddenly his gun jams! If the enemy is given time to guess what has happened, the groups will all rush at him together, and he will be bayonetted to death. There is no time for thought: instinctively our man must know from the condition of his gun's mechanism what is wrong. Without a second's consideration his hands must fly to the erring piece of machinery, detach it from the rest of the weapon, replace it by a sound spare-part, and continue firing. Although the light machine-gun is now the infantry's main fire-producing weapon, the infantryman's training begins with the simpler rifle. The instructor first appeals to the recruit's ear by explaining the rifle's use and make-up, its potentialities and limitations. Then quickly he appeals to the eye, by demonstrating the working of the mechanism and the right handling of the weapon. Now he asks his pupils to imitate his actions: he corrects their faults of movement, then, when these are perfect, he bids them repeat the action many times till it becomes instinctive. Thus the novice learns how to align his sights on the target, how to press the trigger without disturbing his aim, how to work the breech-mechanism by touch alone. He learns how explosives work in flinging a bullet through the air,

(*Continued on following page*)

THE FAMOUS BOLT MECHANISM INVENTED BY LEE: This breech-mechanism is operated just like an ordinary door bolt. Its simplicity is its virtue. In the British type the bolt handle does not assume a vertical position, as in foreign types, when the bolt is being drawn back; it is never more than slightly raised above the level, and in the second position it hangs at an angle of 45 deg. below the horizontal. The handle is placed at the end of the bolt and not in the middle as in nearly all foreign types

MASS FIRING WITH THE RIFLE: The rifle can be employed in two ways. Some experts believe in mass fire at short range for then the men, not perhaps over expert, can shoot into "the brown" and are bound to hit someone

ANOTHER SCHOOL FAVOURS INDIVIDUAL FIRE: Recent war experience would seem to give weight to the argument that the aimed shot is of immense value. If all one's men were Bisley marksmen, one could rely on them to do first-class execution in any situation. Of course, if they are comfortably ensconced in the text-book trenches of the present Western Front, an attack can be met with reasonable security, but these circumstances do not always hold and the infantryman who is also a crack shot will be able to save an awkward situation

THE BREN GUN AS IT APPEARS TO THE NAKED EYE: This new and very popular weapon, which is not an automatic rifle, for it requires a stand, often presents a very odd appearance. It seems to be full of legs sprawling about, this is due to the several purposes to which the gun can be applied. It can be an A.A. gun if desired. When desiring to be concealed as much as possible the gunner lies prone and uses the two little legs in front

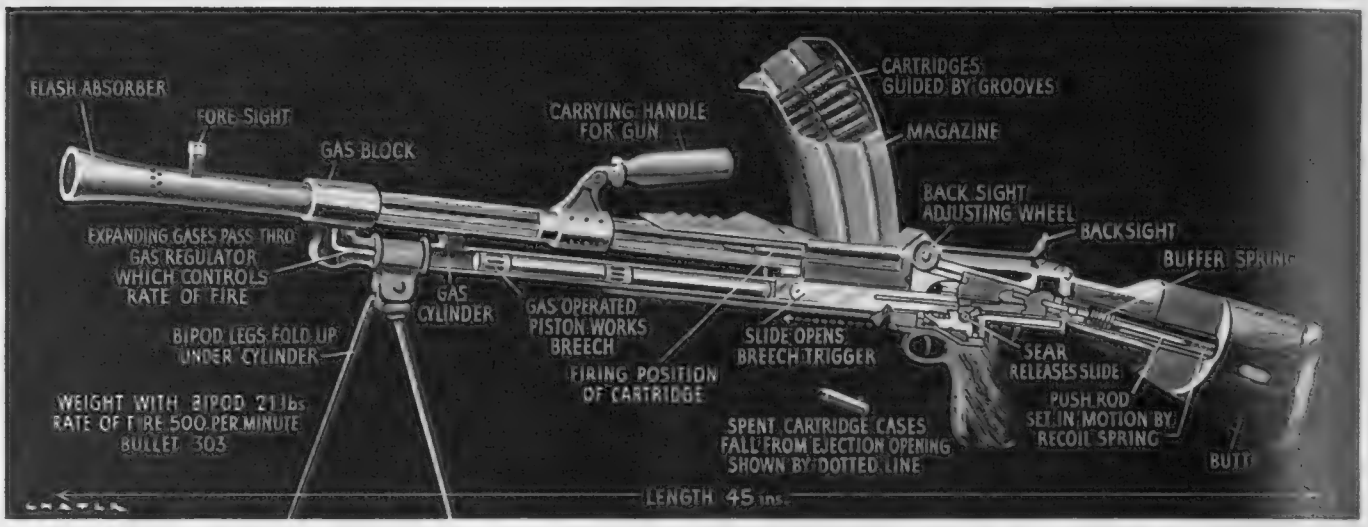
THE ARMING of the INFANTRYMAN

Special Sphere Section

(Continued from preceding page)

how gravity draws it in a curve towards the earth, how wind deflects its course, how heat and cold and damp and dryness and height above sea-level all affect a bullet's flight. He learns that no two weapons behave the same; he learns the idiosyncrasies of his own weapon.

Having thus absorbed the general principles of fire-arms from the functioning of a rifle, the recruit will go on to discover their application to other types of weapons. With the aid of tracer bullets he will acquire a mental picture of the shape of the stream of lead which whistles from a Bren. By watching the high parabola described by a shell from a mortar he will learn how he can lob these projectiles into his enemy's trench. He will learn the right placing of smoke-bombs from the mortar, so that the wind carries the smoke where he wants it.



LOOKING INSIDE THE BREN GUN: Here we are looking into the mechanism by which the rapid fire of the Bren becomes possible. The gun is very popular with all concerned. Its chief feature is that it is gas operated; all the operations of ejection and replacement are accomplished by means of the gas admitted from the barrel through a small hole on the underside of the barrel into a cylinder which runs backwards to the pistons and other mechanisms which enable the Bren to accomplish its high rate of fire in dashes

The penetrating power of an anti-tank rifle will be shown to him on thicknesses of armour-plate. He will seek to acquire a Chicago gangster's skill in handling a Thompson sub-machine-gun in close fighting. He will practise the discipline of the pistol till it ceases to be a danger to himself and his friends. He will learn to throw grenades straight. He will be encouraged to develop a style of bayonet-fighting suited to his own physique, and his eye will be taught the openings to look for in his enemy's guard.

Yes; the modern British infantryman is a man of many parts.

THE BRITISH ARMY'S RIFLE

The rifle now used by the armies of the British Empire has reached a respectable age, celebrating this year its fifty-second birthday. Old soldiers may quarrel with that statement, because they will remember that the Short Magazine Lee-Enfield (S.M.L.E.) was not introduced till 1902. But the S.M.L.E. differed materially from its predecessor, the long Lee-Enfield with Metford's system of rifling, only in its length.

Experiences of the South African War had shown the desirability of supplying the same type of rifle to both cavalry and infantry. The cavalry carbine had proved too short to fire accurately at the long ranges from which Boer mounted infantry were in the habit of attacking their enemies; yet the infantry rifle was too long to be carried in the saddle. So a compromise was made by modifying the infantry rifle to suit both Arms of the Service: this was done by shortening the barrel by 5 ins., and by fixing steel wings to protect the sights from being rubbed in the leather cavalry rifle-bucket. One other important modification of detail made at this time was an arrangement by which cartridges could be loaded into the magazine five at a time. In the old long rifle they had to be inserted singly from the ammunition pouch on the soldier's belt: for use with the new short rifle five cartridges were clipped together by a "charger"; these could then be taken from the pouch and pressed into the magazine by one motion of the hand.

Armies of other nations are equipped with rifles having breech-mechanisms working on much the same general principles as those of the Lee mechanism of the S.M.L.E.; but the British rifle is claimed to have features making it superior to all the rest. The principal of these superiorities is the speed with which it can be manipulated. This advantage is attained chiefly by the style in which the lever used for working the bolt is set on.

The result of this positioning is that the soldier, in manipulating his rifle, has to make the least possible movements of his right hand. When firing from the lying position, he can reload his rifle without removing his right elbow from the ground; thus the operation of reloading can be done much quicker, and the man's aim is not disturbed by excessive movements. This ease of manipulation is further helped by the lever being fixed to the rear end of the bolt, instead of, in foreign rifles, to the middle of its length. It thus always lies much nearer to the firer's right hand. This speed of manipulation enables that "fifteen rounds rapid"—"the mad minute"—which led the Prussians at Mons to believe that every British soldier was armed with a machine-gun.

The Lee mechanism was introduced into the British Army as a result of the labours of a committee which sat to consider the rearming of the Army during the late 1880's. "It speaks well for the thoroughness of the work of this committee," says the official *Text-book of Small Arms*, "that the Lee action and magazine, with modifications only of detail from their early form, should have proved themselves thoroughly efficient and reliable in the Great War thirty years later." "And," it might be added, "in Hitler's War fifty years later." From time to time other breech-mechanisms have been experimented with; but in practical tests the old favourite has always held the field against all newcomers.

The Short Magazine Lee-Enfield rifle is built up of about one hundred and thirty different parts. The materials used are steel, iron, brass, and wood. The steel for the barrel must answer

THE HANDLING OF A BREN IN A WELL-MADE TRENCH: This official picture from the Western Front shows a Bren gunner standing on the tidy firing step while three other members of the little team are feeding him with clips. It would appear to be a practice shoot, for the gunner's position would hardly be tenable if a sharpshooter were anywhere in the neighbourhood on the other side

to a very rigid tensile strength test, its yield point must not occur at under 26 tons to the square inch. For the stock, walnut is used, this wood being less liable to split than others. It takes a fine polish, too, a fact not overlooked in smart regiments.

THE BREN LIGHT MACHINE-GUN

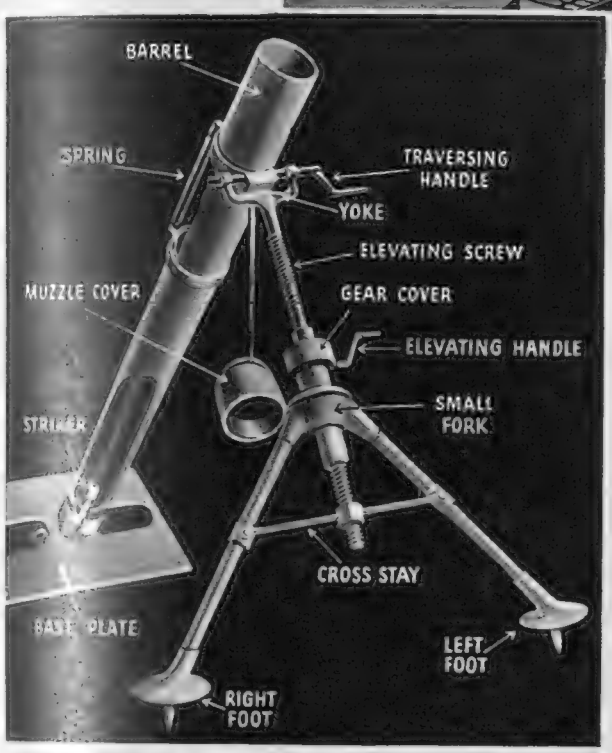
The Bren light machine-gun is an excellent little weapon. If we could watch an infantry section in action on the Western Front, we would see half a dozen men lying in a rough crescent formation with one of these weapons protruding forward from their centre. One man would be firing the gun, while another lay beside him to help with reloading. For the remainder the chief duties are to carry extra ammunition and to take

THE BREN GUNNER'S TASK CAN BE A VERY SERIOUS ONE: He may, as our author pictures, be in a somewhat tight corner; he may, almost alone, have to defend his part of a position or line. The enemy is advancing in those disturbing little dashes from one piece of cover to another. The cover may vary but the effect on the gunner is much the same. He has to keep pretty cool, as the saying goes, and if the blessed thing jams he has to remember exactly where the spare part is in the medicine chest beside him. The beauty of the Bren is that every part can be replaced with a half turn, more or less, and there is no need for a screwdriver

charge of the gun in turn if the man firing it is hit: but they may be called upon to defend the flanks of their little unit with their rifles.

Rearmament with light machine-guns was begun in the last war when one Lewis gun was issued to each platoon. This gun was proved in action to be far from satisfactory: it was bulky, it was heavy, and it was delicate. The number of "stoppages" which the soldier had to learn to rectify was bewildering to the beginner.

When the war was over, our military authorities began to search the world with commendable thoroughness for the most suitable substitute for the Lewis gun; the Madsen had already been superseded by better makes. At last, in 1930, a gun of Czechoslovakian invention called the "Z.B." was investigated. After four years of test and trial, it



THE WORKS OF A NO. 2 MORTAR: These are comparatively simple, consisting only of two springs, two regulating screws and a striker. It is a very effective weapon for all that; it is well to stand out of the way the other end (which may be 500 yards away). Handles control the aiming

THE DEADLY GAME OF PITCH AND TOSS IN MODERN WARFARE: The infantryman has to be expert in grenade-throwing and in the handling of No. 2 mortar (No. 3 mortar is a specialised job). The mortar, of course, throws its pleasant little messages over hundreds of yards, whereas the grenade-throwers, if they don't muff the springs and all that, will accomplish only 30 yards. But if the enemy trench is 25 yards away all is well

FIRING LIVE AMMUNITION FROM A MORTAR: This is the larger type, but much the same in appearance to No. 2. The same springs and aim control handles are there, and the leather cap to keep the tube clean

was found to be the best light machine-gun on offer. It was adopted for the British Army and was renamed "Bren," from the initial letters of Brno, its birthplace (now temporarily in the hands of Prussian barbarians), and Enfield, the site of the Royal Small Arms factory, its chief place of manufacture. It is, of course, made at other places as well; and the heartening news has just arrived that its satisfactory manufacture in quantity has been begun in Canada —five months ahead of schedule.

"The chief qualities of the Bren light machine-gun are," in the words of its official description, "low weight, i.e., 21 lb. complete as compared to 31 lb. for the Lewis; extreme steadiness when firing; almost complete immunity from the effects of fouling, dirt, and dust; great freedom from breakage and stoppages; and the ability to maintain a high rate of fire for relatively long periods."

These good qualities are mostly the result of the Bren's simplicity and strength of design: weight is not taken up by a maddening multitude of tiny gadgets to get out of order and break, which was the case with the Lewis. As an instance of improvement, the claw which extracts the fired cartridge-case from the chamber is, in most guns, actuated by a spring; in the Bren it is moved mechanically; therefore it cannot fail to extract the case, and there is no spring to snap off at a critical moment.

In the manufacture of all kinds of machine-guns an attempt is made to do away with as many nuts, screws, bolts, washers, and pins as possible, because these tend to shake loose and get lost; and if a part of the gun has to be replaced during the heat of action, the man behind the gun should not be required to fiddle about with a screwdriver. Instead the parts are made so that they can be interlocked with each other by a mere twist. If tools are indispensable for any particular adjustment, they should be reduced to the point of a bullet or, at most, one combination-tool. This principle has been fully applied to the Bren: a hot barrel can be removed and a cool one put in its place with the utmost ease, and without calling for any alteration of sights.

The Bren gun is "gas-operated": that is, the power needed for operating the breech-mechanism so that it extracts and ejects a spent cartridge-case, replaces it by a fresh round, and fires it, comes from the gas generated in the barrel by the explosion of the propellant charge. The amount of gas tapped for this purpose is too small to reduce the speed at which the bullet is propelled. It is tapped through a small hole or vent on the under-side of the barrel near the muzzle; the hole always being bored in a groove of the rifling, for, if it were bored on one of the ridges, a flake of metal might be planed off the bullet which would then not spin true in flight, and the flake might get into the works.

From the vent the gas goes into a cylinder running rearwards under the barrel; there it impinges on the head of a piston, which is thus pushed back each time a round is fired. The rear end of the piston is in contact with the breech-block which, in its backward movement, extracts the spent case from the chamber and ejects it from the gun. The backward movement of the whole piston breech-block group compresses three springs contained within the wooden butt of the gun; these, when the operations of extraction and ejection are complete, force the breech-block and piston forward again.

THERE ARE OTHER THINGS THAN WAR

The Mystery of the Kitchen Garden; Village Cricket and English Lawns

CONCERNING VEGETABLES.—Faint, yet pursuing the bulky form of my most efficient gardener, I am acquiring, bit by bit, some elementary knowledge of the art of food-stuff growing, in the intervals of working double shift with my pen, and patrolling the dark lanes of my own particular "Auburn." It is astonishing that I have lived over fifty years, and much of it in country surroundings, and gained so little of the elementaries of kitchen-garden technique.

Of the names of flowers I am still a poor exponent, but I am an expert in flowers and shrubs when my knowledge of them is set beside my ignorant self walking his kitchen-garden paths. I had not until to-day the most childish notions of the methods of raising vegetables. There seems to me to be no season of the year when the gardener was not planting-out some form of vegetable. I have seen him after a hard winter digging up and replanting huge and apparently decayed broccoli, and I have found myself battening on their revived succulence a few weeks later.

But of late I have watched him and cross-questioned him and fagged for him with simple jobs done with a hoe, and I have gained a glimmering of the scope of his responsibility and the infinite pains and disappointments of his job. I have watched his large hands sowing tiny seeds and planting out diminutive seedlings, and I have seen a few days later thin ribbons of pale green, for all the world like the S.R. line at Clapham Junction, ruled on the brown soil. A few more weeks, and these tiny lines are fit for Jack o' the Beanstalk and for the innumerable pests which wreck the gardener's labour and break his heart—the pigeons which strip his cabbages in a night, the jays which go fifty-fifty with his employer's family in enjoying the beans and peas, the mice and slugs and caterpillars which eat out his heart and the hearts of his plants.

I have gained a little knowledge, too, of the meaning of rotation, of the aids to poor soils, of the uses of red-lead and salt, lime and phosphates, and I begin to think his mind is far better and more fully (as it is in war time more usefully) stored than mine. Naturally, he patronises me—that is the gardener's right and habit. But I caught him out once—over the asparagus. I was sent to buy agricultural salt for the asparagus bed. I found in the shop an eminent scientist in horticulture. He asked me why I applied salt specially to asparagus. I presumed that its nature required that form of element mixed with the soil. He told me it was done simply to keep the weeds down, since asparagus beds could not be properly hoed. I went home with my salt and posed the question to my gardener. His reply was what mine had been. Taking the expert's place I put him right (without disclosing my authority). So I got one point back.

Village Cricket.—"They don't somehow seem to think it worth trying to arrange any cricket matches in the village this summer." So my same gardener, a keen cricketer, sadly told me the other day. He is working from dawn to dusk, having nearly doubled the productive area of our kitchen garden; he is an A.R.P. officer, and one way and another a local key-man, for on his labours largely depend for water, light and much food a community of sixteen persons including evacuees. And as his work has doubled, so his chances of recreation and change have diminished.

He used to act as my loader in the shooting season and got several jolly days of change by that means. But that is all over now. He had the use of a "baby" car to take his family for occasional outings, but the car is laid up now. And there are scores of middle-aged men like him in our village who are working long hours and have lost most of the means of relaxation they enjoy in peace time.

There is every reason for keeping cricket alive. The ground is still there. It is rather pitted by the heels of London boys who have drilled and played football on it, but it is still playable and could surely be reserved for the village on Saturday afternoons, especially as many of the evacuees could be pressed into the service to play.

I agree that the plea that "we are keeping the game alive until the boys come home" cannot be urged. The younger men and boys of the village do not greatly support village cricket. The game is too slow for them. They want a quick game of lawn tennis and then to be off with their girls on motor bicycles to the cinema. Village cricket is kept going mostly by the middle aged and is, I suppose, a dying institution. And yet in my bones I feel that this old game is an essential part of what is still best in England.

In a little book on that same England which I once wrote I ventured to assert: "It is quite certain that the heart of England can only be reached by the path which lies across those village greens and usually bisects the wicket itself." Some years later I was intrigued to hear Mr. Mais quote on the wireless these words from a forgotten book of mine. He believed them to be true when he quoted them, and I believe them to be true still to-day.

I think even young men in France and Norway and far away on sea and land, in deserts and snow mountains, still retain that traditional picture of village-green cricket played under the lengthening shadows of the elms; and would be sorry to return to an England in which that pleasant, sane and peaceful picture had become only one more memory of ancient peace, fellowship and innocence. Who knows?

Redeunt Saturnia regna. There may yet be a reaction to the fashions we have recklessly discarded from the chariots of speed and progress and constant change.

MAY IN WESTMORLAND: A picture taken at Crosthwaite where the damson blossom now flourishes in the hedgerows. It is difficult to think in terms of war with such peaceful vistas of rolling hills and green pastures spread out before one

Action and Reaction.—Is it not probable that when at last this nightmare is over, even in the midst of the inevitable political and economic convulsions which always follow war, the tired and disillusioned minds of Englishmen and of all civilised men will turn with relief and thankfulness to many discarded fashions in thought and in the manner of living? Is it not almost certain that the distrust and destruction, the terror and doubt, which they have created, will bring on some of the perverted inventions of science an unpopularity which will jolt us back to Victorianism?

The very name of propaganda will be a word of shame; the aeroplane may be recognised as the first enemy of security and human happiness. Of the wireless we shall be so totally sick (if its present fare continues unchanged) that we shall smash our beastly little boxes and walk out to listen to the birds. Of sensation we shall be surfeited to nausea; from speed we shall fly with greater speed. It will make us bilious to hear the proud announcement of a new plane which travels 600 m.p.h.

We shall ask of our film makers nothing more exciting than Scott or Jane Austen. We shall even be weary of crooks and crook literature, for we are face to face with the super-Moriarty of all time. In these reactions, may not the village green come back to its own? And the croquet lawns, and, for all I know, the samplers and the albums and the hortus siccus?

Gardens.—The opening of gardens under the Nursing Institute scheme is once more in full swing. The cause is a noble one—district nursing—noble and vital, more than ever so in war-time. The fullness of the "swing" depends entirely on *you*. Save a little petrol and a few shillings to support the cause and to give yourselves the best war-time relief which is, next to good literature, available to you still.

I note from the County Lists to hand that almost all the old favourites are opening their gates once more. This ought to be, indeed already proves, a notable year for blossom and flowering shrubs. May should provide a fine feast of colour and it looks as if it will mingle spring with summer and let all the fireworks off in a bouquet of unusual splendour.

In Surrey there are famous gardens to be seen early in May which are quite close to Cobham, Haslemere, Gomshall, Chobham, Godalming, Guildford. Mr. Lloyd George's garden at Bron-y-de, Churt, can be reached by bus from Farnham or Haslemere and is always worth seeing.

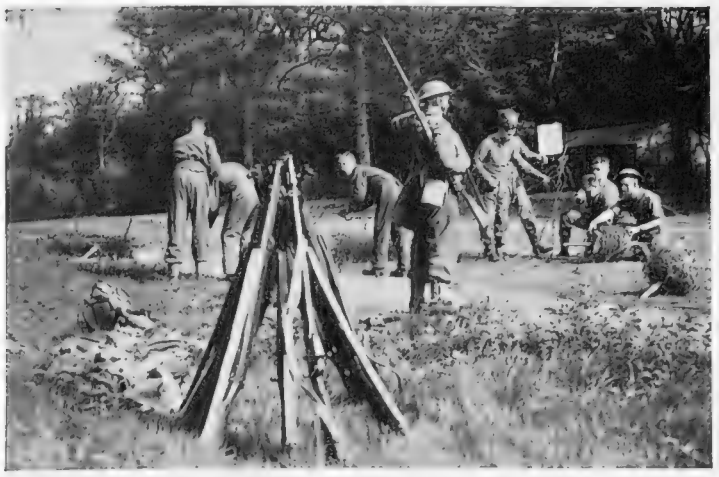
A Record of Doomed Beauties.—The Pilgrim Trust enabled the fulfilment of a scheme started by the Board of Education to give much-needed support to those artists (in the broad sense) whose work has largely ceased since the war began. Now the same noble benefactor has enabled a Ministry of Labour Committee under Sir H. Llewellyn Smith to utilise the services of a limited number of chosen artists (suffering from war distress) for a scheme of some national importance (judged even through the spectacles of a war for existence). The chosen artists will be commissioned to make a pictorial record of what remains of our national heritage of beauty; views, buildings, sites which are likely in the next few years to go the way of so much of our ancient heritage of beauty which has been destroyed beyond recall by the vandalism of commercialism. A start will be made with the counties of Bucks, Dorset, Essex, Suffolk, Sussex and Yorkshire.

The various Preservation Societies will co-operate with the Committee in selecting these doomed treasures and then the chosen artists will be left free to treat their subjects according to their individual genius. Their work will be paid for but not sold. One day it may form the nucleus of a gallery of "might have beens," a tragic gallery over whose portals the words "too late" should be inscribed. A gallery which will stand as an object lesson to posterity, to a (we hope) happier and more decent age. It is a fine scheme, for it will help some artists. It is (at first sight) a tragic aim, for it is to preserve some memory of beauty and friendship doomed inexorably to early extinction. But in so far as it is designed as an object lesson to posterity and for the future, it contains elements of cheer and proofs of vision by a hard-worked department in a time of unparalleled anxiety. May it prosper!

J. G.

Britain Barricades Her Roads

The Pope Appeals for Peace



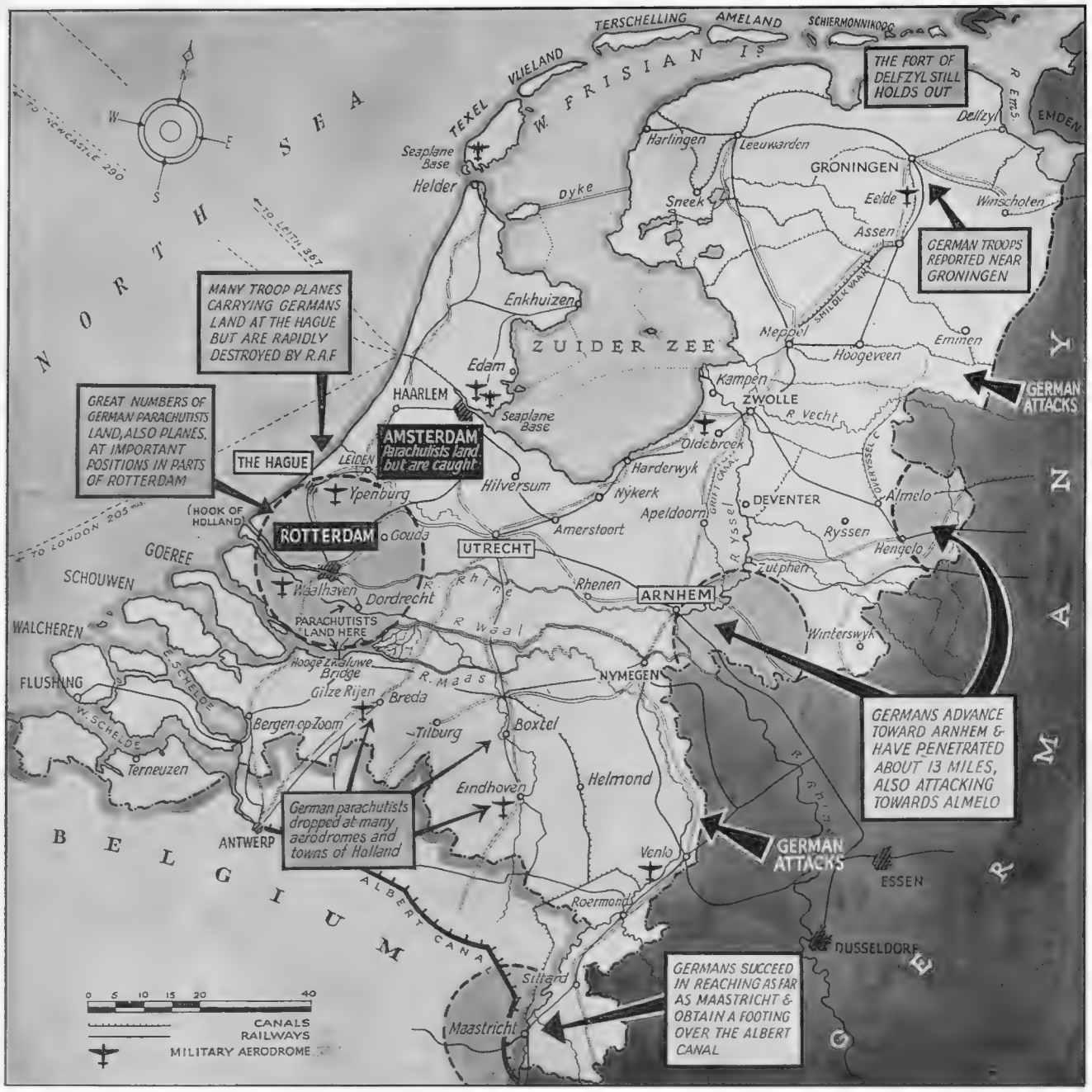
CHECKING THE FIFTH COLUMN: Troops erecting a barbed-wire barrier across a main road. All traffic was brought to a standstill and drivers were asked for their identity cards before they were allowed to proceed. It is to be hoped that all would-be Quislings will be thus enmeshed in barbed wire

ERATIONS UNDER ARMED GUARD: The movable centre portion of the barbed-wire barricade being placed in position across the road. This is moved aside to allow those to pass who give a satisfactory account of their movements. A fully armed sentry stands on guard

"GLORY TO GOD IN THE HIGHEST": On Sunday last the King and Queen attended morning service at the Guards' Chapel, Wellington Barracks. The service was conducted by Lieut.-Colonel the Rev. T. W. Heal. Their Majesties are seen leaving the Chapel after the ceremony

THE HOLY SPONSOR OF PEACE: His Holiness the Pope blessing the congregation after his recent broadcast Mass in connection with the proclamation of St. Catherine of Siena as one of the patron saints of Italy. During the sermon His Holiness made a stirring appeal for peace, addressed not only to the people of Italy, but to the whole world. It was at the end of his utterance that the huge congregation clapped and cried "Peace, we want peace!"

ROYAL VISITORS TO THE POPE: Prince Umberto and Princess Marie Jose seen leaving the Vatican after paying a formal visit to the Pope. When they had been received in audience by His Holiness they attended the Mass at St. Peter's, where they heard him condemn the German action in invading Holland, Belgium and Luxembourg



HOLLAND : Four main German thrusts are here indicated by tinted areas with circles and semi-circles. When the war storm broke on the Low Countries, the Dutch troops were standing by the first water defence along the Yssel River, it having been recognised that the N.E. provinces would have to be surrendered. The German claims to have reached the Zuider Zee, or Yssel Meer as it is now termed, did not mean any real challenge. More serious were the thrusts towards Arnhem, the beautiful wooded residential area in Eastern Holland, and Almelo. At Arnhem the Yssel appears to have been crossed, together with the Maas, farther to the south. At the same time a determined attempt on The Hague and Rotterdam was made by parachute troops. Many of these early parachute efforts were frustrated and the aerodrome at Waalhaven was cleared by R.A.F. bombers

THE MAIN THEATRE OF WARFARE IN ... to show the whole of the Low ... routes and air ports, together with ... northern extensions of the lines have ... remains to be proved. The distance ... London to Amsterdam

THE GERMAN ... HOLLAND

The First Main Attacks Shown

May 10, Friday.—Holland was **invaded by German troops at 3 a.m.** Troops landed by parachute at The Hague, Dordrecht, Rotterdam —the intention of the Nazi leaders apparently being to seize the Dutch Government at The Hague, and to capture all aerodromes and key towns. Junkers bombers carrying troops landed at low tide on the coast near The Hague, all destroyed by shells from Dutch destroyer. Dutch opened flood gates to flood their water-line protection.

At 8 a.m.—**Appeal for assistance sent** to Allies, who replied, within 30 minutes, that they would bring all help in their power. **At Rotterdam,** Germans alighted from Dornier flying-boats at 5 a.m.—landing troops seized bridges without difficulty ; and secured the

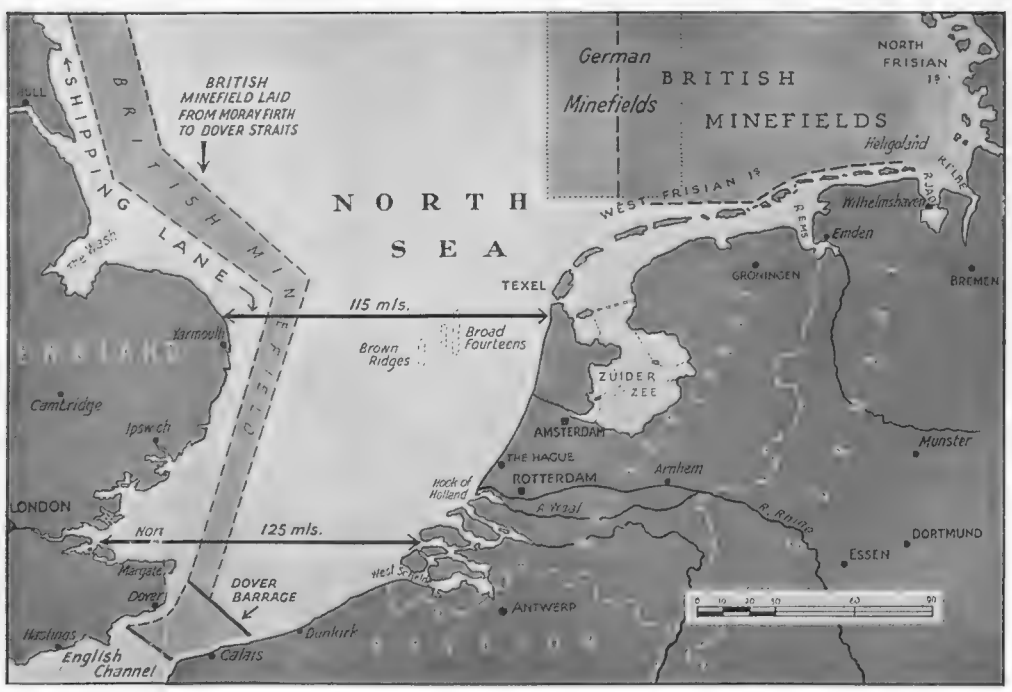
HOLLAND

May 5.—Holland takes precautions. Dangerous pro-Nazi persons arrested.

May 7.—All military leave cancelled and coastal defences reinforced. Ships forbidden to enter certain areas—Waal Canal, River Meuse, and Juliana Canal.

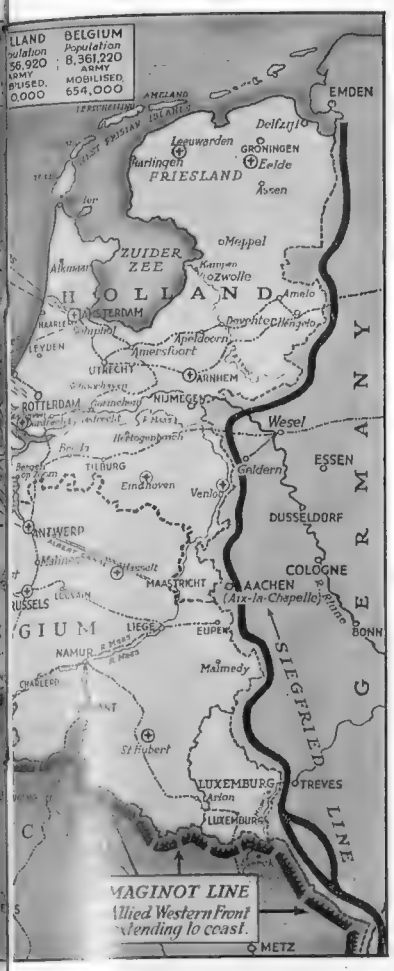
May 8.—All public buildings, broadcasting stations and key-points and large towns guarded day and night. 600,000 soldiers standing ready. No panic among the Dutch civilians. Germany denied any thought of invasion of Holland.

May 9.—All telephone communications cut off, and all canal locks closed. Dutch frontier troops blew up bridges over Yssel and Maas. Large sewer pipes placed over Schipol Aerodrome. More suspects arrested. Slight lessening of feeling of tension.



THE NORTH SEA FACTOR IN THE WESTERN WAR: This map shows the distances separating England from the Netherlands coasts. From Norfolk to the tip of Western Holland is 115 miles while the distance separating the Nore from the Scheldt is some 125 miles. The three great ports on this coast are Amsterdam (through the ocean canal at Ymuiden), Rotterdam on the Maas, and Antwerp on the Scheldt. The greatest pressure has been against Rotterdam

AIR DISTANCES FROM N.E. FRANCE: The outbreak of the German war thrust in the West has materially altered the situation with regard to air warfare. One can see at a glance, by means of the fifty miles circles, how points can be reached within Holland, Belgium and Germany—the distances are all comparatively short



THE WEST: This map has been prepared Countries area, with main railways, air the great fortified lines. Whether these the full length of those farther south from England to Brussels is 195 miles, 208 miles

THRUST against and BELGIUM

in a Series of Special Pictures

Waalhaven Aerodrome, a few miles from the city. By 3 p.m. the R.A.F. made ... ce attack on the aerodrome, obtaining great success on the German troop-carriers. Amsterdam had two raids. Waves of parachute troops landed at Dordrecht at dawn, seizing the aerodrome, which was afterwards recaptured by the Dutch.

May 11, Saturday.—Fierce local fighting **in Rotterdam,** ... d for the possession of Waalhaven Aerodrome. Two ... acks by the R.A.F. when direct hits were obtained on troop-carrying planes, hangars ablaze. Germans only opposing with machine-gun fire. Amsterdam ... ore air raids. Amstel railway hit. Dutch destroyed troop trains near frontier at Arnhem and Venlo. At The Hague Germans attempted to march into centre of city, driven back to house, all killed or captured. **Maastricht**—Germans gained foothold after suffering heavy casualties.

May 12, Sunday.—Germans crossed Yssel and Maas rivers. **At Rotterdam,** Nazis holding out in Stock Exchange building. City damaged by fires, which, however, were nearly all put out. **Hague Aerodrome** recaptured after having changed hands three times since Friday. **Dordrecht recaptured**—largely through the Dutch navy who had wiped out planes, men and stores. Frontier troops had withdrawn according to plan.

May 13, Monday.—German Army being held by Dutch defences behind Yssel and Maas. All fresh parachute invaders put out of action.

INVASION OF BELGIUM

May 7.—Belgian defences manned.

May 9.—Traffic stopped on Albert Canal.

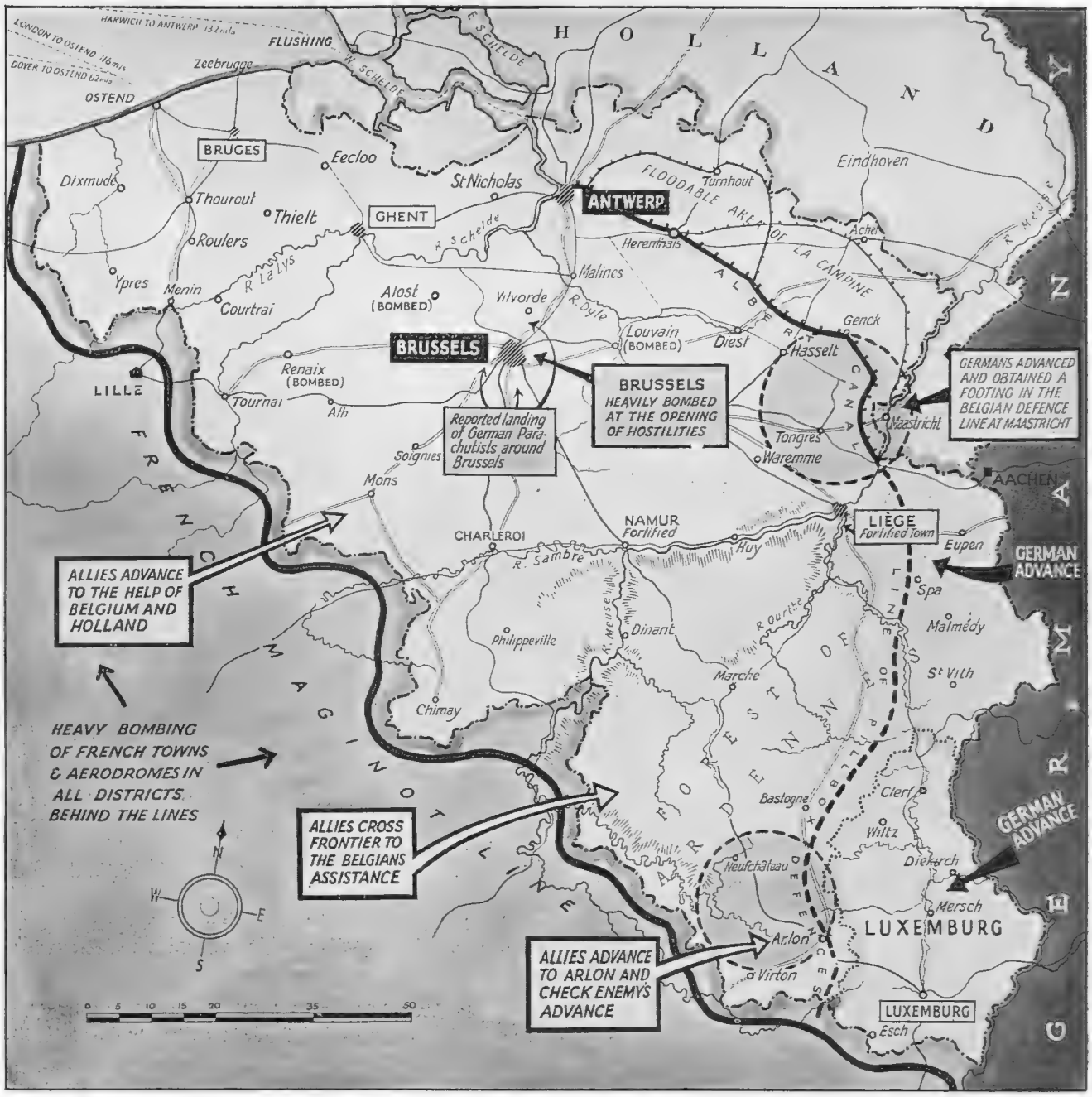
May 10.—**Germans invaded Belgium** at 4.30 a.m., attacking at four points on the frontier. **Brussels bombed** at 5.30 a.m., waves of German bombers attacking aerodrome; parachute troops dropped to cut communications.

At 10 a.m.—Appeal for help to Allies—British Expeditionary Force moved into Belgium during the morning. Great air fights took place over Tournai. No Belgian airfield was captured. German advance held.

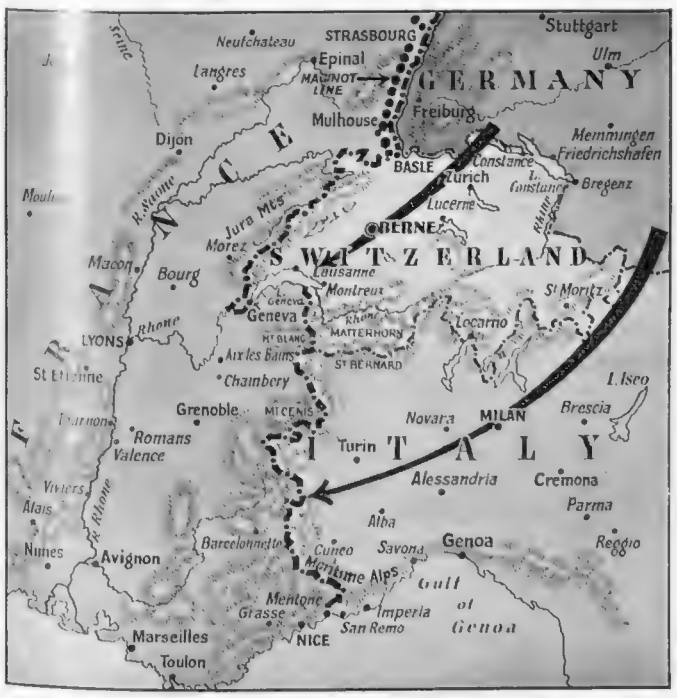
May 11, Saturday—Maastricht—incessant bombing took place and large enemy forces attacked, supported by tanks. Liége—positions intact. Germans unable to advance. Antwerp—petrol storage tank hit by German bomb, severe fires caused. Fierce attack on Albert Canal—enemy succeeded in crossing. Belgians withdrew to Tongres. Attacks were made on Ardennes.

May 12, Sunday.—Germans reached St. Trond, on Liége–Louvain roads, aided by enormous masses of tanks, and are now near Waremme, 16 miles west of Liége. Motorised French troops fighting with Belgians in Luxembourg province; 300 enemy planes destroyed.

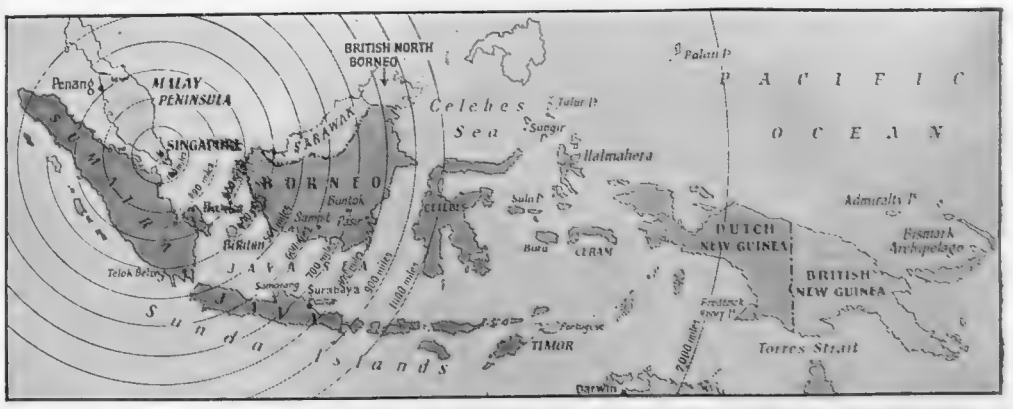
May 13.—Successful destruction by the R.A.F. of two bridges leading into Liége.



BELGIUM: Belgian territory encountered the storm at the same time as her northern neighbour. By the misfortune of a bridge at Maastricht remaining undestroyed, the Germans were able to rush motorised columns into Belgian territory across the narrow appendix of Dutch Limburg. The enemy thrust spread out to Tongres, Hasselt, and Waremme. The forts of Liége were attacked at the same time. The heavier thrust appeared to be in the hilly Ardennes country in the neighbourhood of Arlon. Germany had at once thrust her way across Luxembourg, with the aid of 20,000 supporters within the duchy. The attack was being pressed in this area with fierce intensity. The Allies came at once to the support of the Belgians, the British columns advancing with great speed and effectiveness. Only approximate positions for these latter movements are indicated

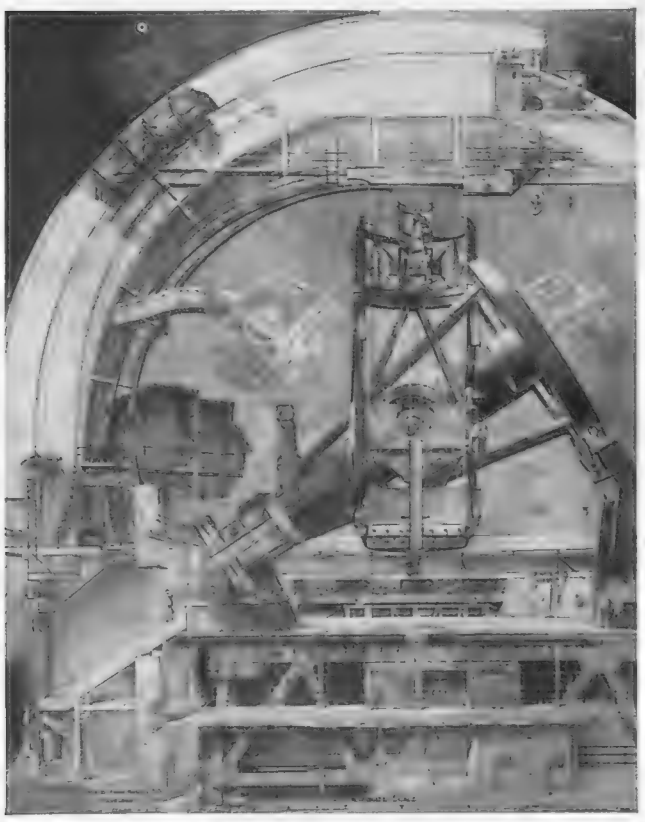


WHY SWITZERLAND IS ARMING: Day after day little Switzerland has been adding to her defences in view of a possible attack by Germany by land and air. Such an attack by Basle, Berne and Geneva would outflank the main Maginot Line, which Hitler evidently does not like tackling. A more southern line of attack is also indicated

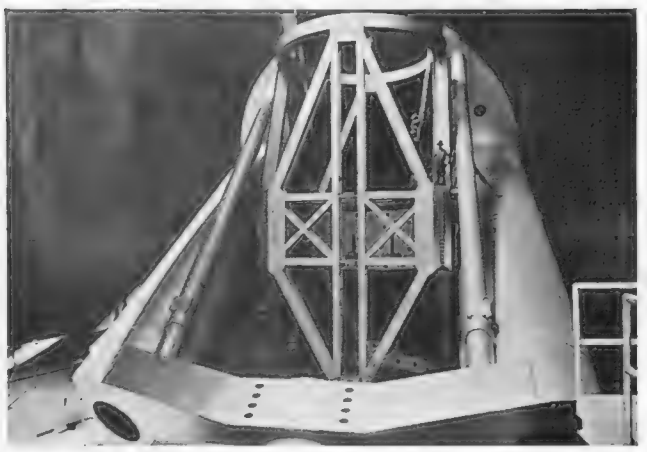


THE DUTCH POSSESSIONS IN THE FAR EAST: The wide extent of the Dutch East Indian territories is shown in this map—they are indicated by a darker tint. The proximity of the big British naval and air base at Singapore is also indicated. The Dutch people were very heartened the other evening when the Dutch East Indies wirelessed their whole-hearted support of the mother country. The once German possessions have been under mandatory powers

THE HOME OF THE 200-IN. TELESCOPE: The Hale Observatory on Mount Palomar, a 6,000-ft. peak in Southern California. It is the largest circular building of its kind with a diameter of 137 ft. The telescope will point to the heavens through a slot 30 ft. wide



SECTIONAL VIEW: A drawing showing the interior of the great dome with the mighty telescope in position, yoked into place by massive girders which support it and permit it to be pointed in the desired direction



THE MASSIVE MOUNTING: Erecting the huge members of the telescope tube. Some idea of its size can be gained by comparing the structure with the man seen standing on the cross girders

ERECTING A 450-TON TELESCOPE

During the past twelve months considerable progress has been made towards the completion of the much-talked-of 200-in. telescope on Mount Palomar in Southern California. The observatory building is the largest circular structure of its kind. The walls are of concrete 60 ft. high, which carry the rails upon which the dome revolves. There is an opening of 30 ft. in the roof. Through this the telescope will point when in use and at other times the opening will be covered by a sliding pane. In addition to the building, which will be known as the Hale Observatory, after the late Dr. G. E. Hale, who founded the late Mount Wilson Observatory and successfully engineered the project of the 200-in. giant, a power plant and radio station have been erected and a landing ground prepared for aeroplanes. The great telescope, which is of the reflector type, will be powerful enough to penetrate more than three times as far as any existing telescope, and to open up an unexplored sphere of the heavens thirty times the volume of that known.

The World of Books—By Vernon Fane

18TH- AND 19TH-CENTURY SETTINGS

Fictional Themes of a Bygone Era

FASHIONS change in all things, and not least in paintings. There is no longer, I understand, a great demand for those vast pictures of puzzled, snow-bound sheep, magnificently framed in gilt and scrolls that delighted the mid-Victorian paterfamilias. They are relegated to lumber rooms or disused billiards rooms, and it is only the frames themselves, adapted to suit a modern convention, that still attract the discriminating buyer.

Such a frame, authentically ornate and flamboyant, has Mr. Michael Sadleir constructed in his new novel to contain the portrait of a simple young girl in love. **FANNY BY GASLIGHT** (Constable. 8s. 6d.) is the particularly happy title of a novel of London in the '70's, a London whose debauched and vicious night life makes milk bars of all this decade's bottle parties and night clubs.

It was a London, or at any rate that part of it from Regent's Park to Leicester Square, with which the author is concerned, in which echoes of the Mohocks and Regency bucks persisted, where a carefully selected audience might see a strip-tease performed, or a larger audience see a can-can danced as it was meant to be danced, and where the most inhuman traffic in humanity was almost a commonplace.

In these surroundings Fanny was born and grew to adolescence as the accepted daughter of one Hopwood, the keeper of a notorious "dive." On his eventual arrest, however, she went as maid to the solemn respectability of her real father's house, where, under the auspices of a discreet and kindly old housekeeper, she learned a little about parental love and a great deal about the *beau monde*.

When Fanny falls in love it is with a large, mild and affectionate man from that world, and with him she knows some years of happiness until his death in a duel in Paris. From that moment her story is over and she lives in retirement for the fifty-odd years till her death.

Fanny's story is as simple as its setting is elaborate, and it is the measure of Mr. Sadleir's art that he has kept the two so perfectly complementary to each other.

To have been kissed by the great actress Rachel, and praised by Abraham Lincoln, should be an excellent start in life for any baby, even for one born in the inner circles of Boston society in the '50's. Such was the auspicious opening of Mr. Inman Barnard's career, and he, at the age of ninety, has written down some of his memories in **CITIES AND MEN** (Geoffrey Bles. 12s. 6d.).

Mr. Barnard, it seems, has been fortunate in his friends, for he could count among them no less distinguished figures than General Gordon and Sir Richard Burton, of *Arabian Nights* fame, but it was under the ægis of James Gordon Bennett, the well-known New York newspaper proprietor, that he made some of the most interesting of his acquaintances.

In 1882 Mr. Barnard became a war correspondent and set off for Constantinople with letters to the Zaharoffs, to the British Ambassador and to Lew Wallace who was there in his capacity as U.S. Minister, and not as the famous author of *Ben Hur*.

It is of Victor Hugo that he tells his most amusing anecdotes, for, as may be imagined, this is the type of book which makes up in good stories what it lacks in continuity. A Parisian wit being asked one day how Victor Hugo, when he reached Paradise, would address the Almighty, replied, "Oh, he will simply say, '*Bonjour, cher confrere.*' " And it was repeated of Victor Hugo that he was in deadly earnest when he made his astonishing threat that he would go up to the Deity after his death and cry: "*Maintenant, Seigneur, expliquons-nous!*"

After a slow beginning, dangerously slow for the casual reader, Mr. Frederick Niven's romance, **MINE INHERITANCE** (Collins. 9s.) gets truly into its stride and proves him once again and beyond any doubt to be in that short front rank of our finest novelists.

The story, of the opening up of the Canadian West, begins in the year 1811 when a small band of Scottish settlers sailed for Hudson Bay as the nucleus of the Earl of Selkirk's colony scheme. It was Lord Selkirk's idea to form a settlement and to build up a life for those highlanders who were being evicted from their homes, and their small crofts to make room for sheep farming. "It is my intention," he said, "to establish them in a part of the world where they can own their land, from which they can never be evicted, which will be an inheritance for their children."

The colonists met with hazards and dangers of many kinds, and the rigours of the winter and the scarcity of food were not their only enemies. The Hudson Bay Company had granted them the land they needed, but the rival North Western Company tried to harry them off it. This is a story of heroism and sturdy endurance and there is poetry in Mr. Niven's telling of it.

AN EIGHTEENTH-CENTURY JOURNAL (Macmillan. 16s.) is such a diary as might have been compiled by a gentleman living in London between the years 1774 to 1776, visiting the theatre, the card rooms and the principal trials, and keeping an observant eye open for those events which might have repercussions 150 years later. The journal's twentieth-century author, Mr. John Hampden, has compiled his book from authentic contemporary sources, with the kind of divine omniscience which comes from having seen history proved.

During the time with which Mr. Hampden's diarist is concerned, the great matter of interest was the American War of Independence and that is naturally given its place of importance with a number of extracts from Burke's speeches, on which the writer comments, in one instance: "With the quickest conception and amazing facility of elocution, with great strength of argumentation, and with all the powers of imagination and memory the speech has great defects. The redundancy of image, the pursuit of wit, even to puerility, the want of judgment and sobriety, and the still greater want of art to touch the passions, rank this great composition . . . but with the species of imperfect eloquence."

But the diarist had less weighty matters for consideration, whether it were a duel between two Irish hairdressers with pistols charged with half-boiled potatoes, or the time taken to extinguish a fire in the wig of a lady of fashion. There are echoes, unpleasantly familiar to our ears, in the account of the expulsion of Jews from Eastern European cities "on pain of confiscation of their effects," and a reassuring reminder of progress in the case of a woman who was punished as a witch for having consented to a blood transfusion.

Since no diary, real or collated, of this period would be complete without its Johnsonian memory, Mr. Hampden refers to him on several occasions, and most effectively (and unquotably) on the subject of Lord Chesterfield's letters to his son.

Since not even world wars seem to check the feminine pursuit of beauty, I have no doubt that Miss Jane Gordon's authoritative new book on the subject will have a great success, and that the success will be deserved, since Miss Gordon is really an authority both as a beautiful woman and as one who has made a very serious and reasonably scientific study of her subject.

TECHNIQUE FOR BEAUTY (Faber and Faber. 10s. 6d.) covers, I should think, all the ground on which any woman might want information and advice with regard to her appearance, and it has the inestimable advantage of being entirely practical. Miss Gordon not only tells her readers what to do about their faces and hands and figures, she tells them what preparations to buy, how much they will cost, and where they can be found.

Woman, literally from top to toe, is her theme, and as far as I could assess she covers every inch of the territory. In fact, this is a veritable *Mrs. Beeton on Beauty*. All her advice is based on sound common sense, an insistence on good health as the best of all beautifiers, and a recognition of the necessity for consulting medical specialists on all but the most superficial problems.

Miss Gordon writes with humour as well as authority, and I expect that her book will very soon be a familiar adjunct to every self-respecting dressing-table.

The great advantage, as I now see it, of not reading fiction magazines is that when, perhaps twice or three times in a year, one comes across a volume of short stories that have already been published elsewhere and that are by a favourite author one comes to them with complete freshness.

I have never read one of Miss Margaret Irwin's short stories and I was particularly interested to see how she would handle this deceptive and often ungrateful form. There are so few who have mastered its technique beyond the demands of mere slickness, and fewer still who can write as satisfying a short story as a novel.

MRS. OLIVER CROMWELL (Chatto and Windus. 7s. 6d.) proves at least one thing to me, and that is Miss Irwin's high level of sheer technical ability. I have always thought her a genuinely romantic writer, with great charm and vitality about her characterisations. Now it is easy to recognise some of the skill which she has used deliberately, to adopt a manner and, as in this collection of short stories, to exchange it for another.

Nothing could be more foreign to her stories of cavaliers and their kings than an Irish sketch, *Bloodstock*, and nothing could be more elegant and tinselly than *I See You*, the story of a super-sophisticate at Monte Carlo.

These ten stories have variety, point, and each has its own indefinable atmosphere, and that is an admirable combination by any critical standard.

By appointment to the late King George V

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Scientists trace it back to sleep

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The people in this Group stand war strain best. Their sleep restores body, nerves and brain completely. Even with only 5 or 6 hours in bed they are never handicapped by "nerves" or tiredness. Theirs is the thoroughly refreshing 1st Group Sleep that everyone should have and that Horlicks bestows.

2nd SLEEP GROUP
2nd Group people seem to sleep well enough yet can't stand up to war worry and anxiety. They tire easily, feel "nervy," can't keep their mind on things. That's because excess acid waste products in the blood *activate* their brain and nerves at night. Hospital tests prove Horlicks corrects this.

3rd SLEEP GROUP
The people in this Group are least able to stand war strain. They sleep badly — can't get to sleep, lie awake or wake tired. Hospital tests prove that Horlicks overcomes this condition, ensures 1st Group Sleep.

There are 3 Sleep Groups

WHICH DO YOU BELONG TO?

IT'S a curious fact that some people suffer much more than others from war strain. Even though they sleep 8 or 9 hours every night they feel depressed, "nervy" and tired.

Scientists explain it by pointing out that a great many people belong to the wrong sleep group. There are 3 Sleep Groups altogether.

People in the 1st Sleep Group get perfect rest for their brain and nerves even from a short night's sleep. They find they can stand up splendidly to war worry and anxiety.

But the trouble with people in the 2nd and 3rd Sleep Groups is that their brain and nerves are kept active at night by the body's excess acid waste products, which accumulate in the blood.

Scientists, experimenting with various foods and drinks, discovered that Horlicks alone completely neutralized those excess acid waste products. Taken at bedtime, Horlicks gives body, nerves and brain complete repose, and ensures 1st Group Sleep every night.

Start taking Horlicks tonight. See how much more energetic and hopeful you will feel. The longer the war lasts, the more urgently you need the restful, restorative 1st Group Sleep that Horlicks bestows.

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MUDDLING ALONG in the DARK

The Chaotic System of White Lines Makes Night Driving a Nightmare

By A. PERCY BRADLEY, M.I.A.E., A.M.I.Mech.E.
(Clerk of the Course, Brooklands)

THE much longer hours of daylight which we are now enjoying makes it unnecessary for a large number of motorists to drive in the dark but there are a certain proportion who cannot avoid being on the road during the black-out. These unfortunate people are having a very trying time if I can judge by conditions in and around the London to Portsmouth Road area. Unfortunately, the restrictions on petrol do not allow me to investigate as many parts of the country as I was able to do in pre-war days, but it looks to me as if the authorities have either found the cost of keeping white the central road lines excessive or they have forgotten their existence.

I find driving in the black-out is a nightmare, for the winter has removed the white line and it is only on small portions that it has been reinstated. In the absence of the white line I find the line of black tar or bitumen which is so often placed in the middle of the road quite useful and comparatively easy to pick up. On the Kingston by-pass the authorities are particularly slack in the direction indicated.

On many parts of the Portsmouth Road and also on this by-pass for some reason best known to themselves the powers that be have allowed the dotted lines which used to divide the carriage-way into three lanes to fade away gradually and have painted a new dotted line right in the middle of the road, thus dividing the original central lane into two narrow ones which will not accommodate a car. In some parts of the country the police have been active in prosecuting motorists if they go over a white line so we must hope that they will not start activities where this muddle of white lines is in existence because I defy anyone to drive over such portions without crossing one or other of the lines.

The Ministry of Transport is supposed, so far as I understand it, to be responsible for the main roads of the country, although the work on them is carried out by the respective county councils in accordance with the instructions issued by the Ministry. One would have thought, therefore, that with the single direction of the Ministry we would have road work carried out to a standardised specification but I find on the Portsmouth Road on the gradient up to Hindhead from Thursley that plain white insets have been placed in the centre of the road, presumably to do away with the necessity of repainting the line. On the other hand, on certain parts of the Barnet by-pass insets with cat's-eye reflectors have been used for the same purpose. Surely, the Ministry should have made its mind up by now on such matters.

In reports of recent proceedings in Parliament some very true remarks were made by members regarding the savage way in which fines were being inflicted for exceeding the 20 m.p.h. limit during the black-out. I myself have received a number of letters from readers which confirms that the same technical offence far from carries the same penalty in the various parts of the country. None quoted, however, have been as drastic as the one I mentioned in my notes some weeks ago where a young driver for a technical breach of the regulations was fined £10 and then had his job removed from him by his licence being suspended, resulting in his complete inability to pay.

BUSINESS AS USUAL—IN SPITE OF THE WAR: One of a batch of cars for export being loaded into a ship at a west coast port. During the first seven months of the war over 30,000 motor vehicles have been exported. The best demands have come from Australia, India, Malaya and Ceylon. Our wonderful convoy system must take the credit for the maintenance of this record

From the answers given to the questions on the subject in Parliament it appears that the attention of magistrates has been drawn to the desirability of making their punishments more standardised than has previously been the case. It was suggested in the House by the Minister of Transport that drivers should be allowed to flash momentarily their dashboard light on the speedometer so as to be able to check their speed. Promptly some member asked if anyone in the Ministry or in the police had ever tried to do such a thing but so far as reports went no reply was forthcoming.

Obviously, flashing on a light on the dashboard whilst driving in a black-out would be to court a crash and no one in their senses would attempt such a thing. Apart from being dazzled it would be the height of folly for any driver to take his eyes off the small portion of the road ahead which he is able to see under black-out conditions.

The position, therefore, is that the unfortunate motorist is unable to produce any evidence to counteract or contest the evidence of his alleged guilt produced by the police. He is expected to be a highly trained and specialised engineer knowing the speed of his car by the particular hum of the engine.

The ordinary ration books for petrol are now being issued for a period of three months. The idea at the back of this scheme is quite good. The issuing offices apparently do not worry whether the car is registered for one quarter or for a year. In my own case my cars are registered for one quarter and the licence in each case expires on June 30, yet the Post Office very kindly issue me with the necessary coupons to carry me to the end of July.

When I apply for supplementary rations I will not be granted them for the months of June and July because my licence expires on June 30. I wonder why this distinction in procedure should be necessary and why is it that the normal book of coupons is issued for a three-monthly period whereas the supplementary rations are dished out only for two months in advance?

The response to the appeal by the Society of Motor Manufacturers and Traders for subscriptions and articles for the Royal Army Service Corps and the Royal Army Ordnance Corps Comforts Scheme has been quite promising. The total by the time these words appear in print will no doubt reach the £5,000 mark.

The President of the Society is extremely gratified at the present results but emphasises that still further gifts of cash or in kind are urgently required in order that the important work of improving the lot of the ever increasing number of men of these two corps on active service may be continued effectively.

Cheques made payable to "Army Transport Comforts Fund" should be sent to the Honorary Treasurer, Lieut.-Col. D. C. McLagan, D.S.O., M.B.E., T.D., Hobart House, Wilton Street, London, S.W.1, while parcels should be addressed to Colonel McLagan, c/o Comforts Fund, Kensington Palace Barracks, London, W.8.

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750,000 Servicemen in Britain and France are enjoying the homeliness of the Red Shield Clubs every week.

350 Clubs are already in use, some in the Maginot Line, *the farthest forward of any voluntary society.*

Scores of Mobile Canteens, here and overseas, each visit twelve or more isolated units every day.

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The Salvation Army is a real link with the Serviceman's home. If trouble arises there, Salvation Army local workers can be informed and are ready with sympathy and practical help . . . .

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Will YOU do something

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ADDRESS.....

.....

I enclose £.....

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THE ARMY THAT SERVES ON EVERY FRONT

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Your indigestion has vanished and need never return. Get a box of Tablets now and prove this at your next meal.

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For small figures only, in white fine material, **19/6**
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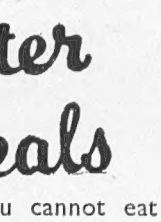

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Founded on traditional merit is that other famous number, Player's No. 3—a cigarette renowned for its delightful mellowness and excellent flavour, with the EXTRA quality demanded by critical smokers of today.

PLAIN OR CORK TIPS
20 FOR 1/9
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UNLIKE any other razor the Eclipse RED RING RAZOR

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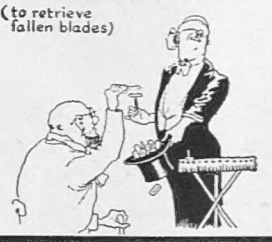

TAKES ANY MAKE OF WAFER BLADE

HAS MICROMETER ADJUSTMENT
(for light and stiff beards)

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'ECLIPSE' SUPER BLADE
forms the world's best shaving combination

RAZORS 2/6 to 10/6
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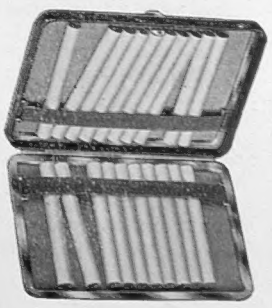
By Appointment to *the late King George V*



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CHUBB SAFES

In Quest of Good Hotels

By ASHLEY COURTENAY

THE oak is beating the ash to it this year. That means to a countryman that we shall have a sunny summer, and that means that it is more than ever important to choose the right place to stay when you are bound for the woods, the fields, or the sea. Everyone needs a holiday in war-time, but I always feel for the Londoner rather particularly, because London in fine weather, though pleasant in itself, always makes the country seem more than ever alluring.

None the less alluring, I know, are the beauties of Yorkshire, Warwickshire, or Derbyshire, to the workers in our big industrial towns, but from the Yorkshire moors to the Kent hopfields is rather a vast jump, so for this article I am confining myself to the Home Counties.

Petrol restrictions are going to hit some people hard this year; of little use to go to Cornwall and then find when you get there that all your touring must be done on your feet. But there are any amount of lovely places to be found near at hand, and good spots to stay in every one of them.

Do you know the type of person who visits friends living on a farm? She is enchanted by the sight of half a dozen piglets, loves to think of milk straight from the cow, and eggs fresh from the hen, but could not bear to have a hand in helping out the process!

What she really wants is the farmhouse atmosphere, and that is what really can be got by those who make a trip to Farnham Farm House, Langton. Only two miles from Tunbridge Wells, yet tucked away at the end of a lane that was once a pack-horse and coach road used by smugglers and bandits, you will find this attractive Elizabethan farm-house, complete with genuine oak beams and secret chambers, equally complete with hot and cold water, central heating and electric fires! In fact, every modern comfort, cleverly and unobtrusively introduced into old world surroundings.

Another excellent place for a holiday in that loveliest of counties, justifiably known as the "Garden of England," is the Leicester Arms, Penshurst, the perfect village inn. In size and accommodation to-day it is an hotel, and a very good one at that, but it has not lost the charm of the original "Four Ale" and the spirit of hospitality is apparent from the moment you cross the welcoming threshold.

For those to whom the pine-scented Surrey woods spell heaven, a holiday haunt "par excellence" is to be found in the Old Manor Country House, Witley. To reach it, you must find your way through a wooded countryside of surpassing beauty; having reached it you will be in a position to study the craft of the Elizabethans, for such is the period of Old Manor. It is unwise in these days of progress to generalise about "old English houses being so cold," at all events when they are run by people who have sampled all the varied rigours of our climate! Many a warm, sunny day will bring a surprisingly chilly evening in its wake, but such a change of atmosphere in the neighbourhood of the Manor House only means that cheery fires will be lit in the wide stone grates.

Summer days bring lethargy to some, energy to others, and for those latter who would spend their hours of ease crossing and re-crossing a tennis court, chasing the elusive golf ball, swimming by day and dancing by night, that Surrey palace in its sixty private acres, the Oatlands Park Hotel, can provide all these delights free to residents. Very much twentieth century in all her appointments, Oatlands has history behind her, for the original Old Palace of Oatlands was in turn the home of Henry VIII, Edward VI, Queen Elizabeth and many another historical figure.

Holiday energy requires that the "inner man" be satisfied, and in no uncertain manner. For those who are looking for a small hotel within easy reach of London, yet deep in the heart of the country, I would suggest they try the Hautboy at Ockham, on the left of the Portsmouth road.

To eat your meals in the Hautboy's baronial dining hall is in itself a treat, but the actual meal you consume, not to mention the wine, a far greater one. The hotel is run by a couple who are connoisseurs in everything culinary, and in these days of rationing such an art has a price above rubies.

One of my most vivid recollections of the Hautboy is the friendly atmosphere of the little bar where I was at once invited to attack the dartboard in a foursome. With no previous knowledge of the game, I flung a carefree dart and scored a double top! Beginner's luck with a vengeance!

Mr. Ashley Courtenay is always pleased to advise "Sphere" readers of hotels, both large and small, known to him personally. Letters should be addressed to him, c/o the Editor, THE SPHERE, *32–34, St. Bride Street, London, E.C.4. Personal and telephone inquiries, however, cannot be accepted.*

THE SHAFTESBURY HOMES AND "ARETHUSA" TRAINING SHIP

The "National Service" carried on by the above Society of maintaining and training 1,165 poor boys and girls must not be forgotten. In the Training Ship *Arethusa* poor boys are being trained for a life at sea and will enter the Royal Navy or Merchant Navy. In the Homes boys are being trained for definite trades, while the girls are prepared for domestic service. A special appeal is made to readers of THE SPHERE to help this work in these difficult times. Please send your donations to the Headquarters of the Society at 164, Shaftesbury Avenue, London, W.C.2.

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This periodical is sold subject to the following conditions, namely, that it shall not, without the written consent of the publishers first given, be lent, resold, hired out or otherwise disposed of by way of Trade except at the full retail price of 1s.: and that it shall not be lent, resold, hired out or otherwise disposed of in a mutilated condition or in any unauthorised cover by way of Trade: or affixed to or as a part of any publication or advertising, literary or pictorial matter whatsoever.

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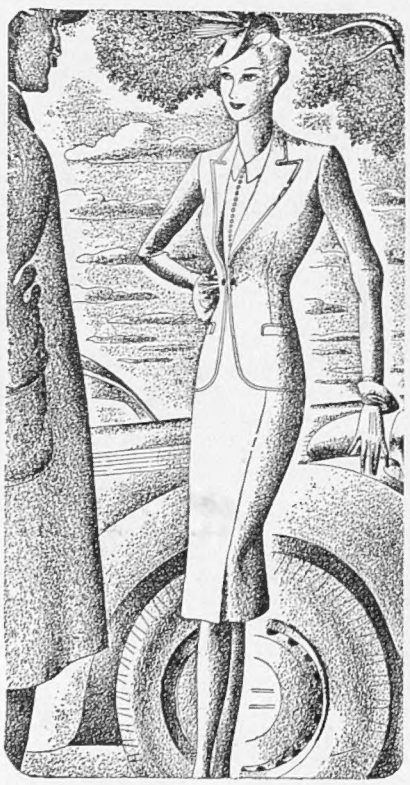
BY APPOINTMENT TO H.M. KING GEORGE VI

The Acme of Smartness is Sobriety

This is a time for smartness without extravagance. That means it is time for tailor-mades, because well-wearing, distinctive tailor-mades conserve our resources yet, by their style and cut, help to maintain our morale.

But with prices advancing it would seem that to be wisely well-dressed one must be something of a Circe. Not at all, no magic is necessary—only a visit to Bernard Weatherill, who had the foresight to lay in large ranges of quality materials. In some cases these were obtained before the steep rise began. In consequence Bernard Weatherill's tailor-mades, though cut and finished with traditional fine craftsmanship, are of pre-war quality without being beyond war-time incomes. Prices from 10 guineas.



This illustration shows a black cloth suit with its neat wrap-over skirt and single breasted jacket. The jacket is bound with braid and has slit hip pockets to match.

Bernard Weatherill Ltd

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51 London Road, Camberley
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Bridge House, S. Ascot

THE SPHERE REGISTER OF HOTELS

The majority of these hotels are personally known to our Hotel Correspondent, Mr. Ashley Courtenay, who will be pleased to give further details regarding them to readers who write to him, c/o "The Sphere."

ENGLAND

Aldeburgh.—Wentworth Hotel. Tel. 312 & 313.
Bath.—Lansdown Grove Hotel. Tel. 3235/36.
Bexhill-on-Sea.—Hotel Riposo. Tel. 472.
Blackpool.—The Headlands. A.A. & R.A.C.
Bognor Regis.—Royal Norfolk Hotel.
Boscastle.—Welltown Manor Guest Hse. Tel. 17.
Bournemouth.—Bourne Hall Hotel. Tel. 5.
Bournemouth.—Tollard Royal.
Brighton.—The King's Hotel.
Bushey.—Bushey Hall Hotel.
Chipping Campden.—Cotswold Hse. Htl. Tel. 330
Crowborough (Sussex).—The Crest Hotel.
Downderry (Cornwall).—Wide Sea Guest House
Dulverton.—Carnarvon Arms.
Dulverton (Som.).—Woodcote Hotel. Tel. 129.
Exeter.—Royal Clarence Hotel.
Falmouth.—Greenbank Hotel.
Falmouth.—Hydro Hotel.
Folkestone.—Queen's Hotel. Telephone 2219.
Goring-on-Thames.—The Bull. Tel. Goring 57.
Grassington (Yorks.).—Devonshire Hotel.
Hove.—Dudley Hotel. Completely modernised.
Leatherhead.—The Red House Hotel.
Lyme Regis.—Hotel Alexandra. Tel. 10.
Lytham (Lancs.)—Clifton Arms Hotel.
Manchester.—Bowdon Hydro.
Newquay.—Hotel Bristol. On sea front. Tel. 2857
Newquay.—Headland Hotel. Tel. Newquay 2211.
Paignton.—Palace Hotel. A.A.****
Paignton.—Ravenswood Hotel. Cliff Road.
Paignton.—Redcliffe Hotel.
Penzance (Cornwall).—Queen's Hotel.
Plympton (nr. Plymouth).—Elfordleigh Hotel.
Salisbury.—Old George Hotel. Tel. 3189.
Sanderstead (Surrey).—Selsdon Park Hotel.
Scarborough.—The Grand. 'Phone: 1053.
Scarborough.—Royal Hotel.
Shaftesbury (Dorset).—Coombe House Hotel.
Sidmouth.—Cedar Shade Hotel.
Sidmouth.—The Torbay Hotel.
Sidmouth.—Victoria Hotel.
St. Austell (Cornwall).—Carlyon Bay Hotel.
Spreyton (Devon).—Fuidge Manor.
Storrington (nr. Pulborough).—Roundabout Htl.
Torquay.—Headland Hotel.
Torquay.—Roslin Hall Hotel. Tel. 4373 (2 lines)
Treyarnon Bay (Cornwall).—Waterbeach Hotel.
Tunbridge Wells.—The Spa Hotel.
Twyford (Berks.).—Grove Hall Hotel. Tel. 106
Weymouth.—Royal Hotel. Tels. 627 & 628.
Worthing.—Greystoke Private Hotel. Tel. 991.

ENGLAND—*continued*

GREAT NORTH ROAD

(Figures in brackets show mileage from London)

Catterick (229).—Bridge House Hotel.

ENGLISH LAKES

Keswick.—Borrowdale Hotel. Borrowdale 24.
Keswick.—Royal Oak Hotel.

LONDON

Ambassadors Hotel, W.C.1. Tel. Euston 1456.
Bailey's Hotel, Gloucester Road, S.W.7.
Dorset Square Hotel. Off Baker St., N.W.1.
S. Kensington Htl. Queen's Gate Terrace, S.W.7.

SCOTLAND

Gairloch (Ross-shire).—Gairloch Hotel.
Glen o'Dee (Banchory).—Royal Deeside Hotel.
Grantown-on-Spey.—Grant Arms Hotel.
North Berwick.—Marine Hotel.
Oban.—Alexandra Hotel.
Oban.—Great Western Hotel.
Onich (Inverness-shire).—Creaghdhu Hotel.
Pitlochry.—Pitlochry Hydro.
Rothesay.—Glenburn Hotel.
Skelmorlie.—Skelmorlie Hydro.
Stranraer.—Auld King's Arms.
Troon.—Marine Hotel.

CHANNEL ISLANDS

Jersey.—St. Brelade's Bay Hotel.

WALES

Bangor.—Castle Hotel.
Llangollen.—The Hand Hotel.

NORTHERN IRELAND

Belfast.—Grand Central Hotel.
Rostrevor.—Great Northern Railway Hotel.

EIRE

Bundoran.—Great Northern Railway Hotel.
Dun Laoghaire (Kingstown).—Ross's Hotel.
Glendalough (Co. Wicklow).—Royal Hotel.
Greenore.—Great Northern Railway Hotel.
Greystones (Co. Wicklow).—Grand Hotel.
Kingstown (Co. Dublin).—Royal Marine Hotel.

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We will collect you from St. Germans Station—four miles, if necessary.

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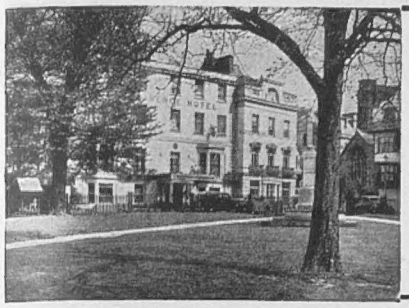

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EXETER

"Neath the shadow of a Symphony in Stone."

Write for Brochure or 'phone 4071/2

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ALL CHANGE is a tonic, and one which the worries of war-time demand. From an hotel replete with modern comforts, enjoy the beauties of the Cornish coast.

Terms from 4 to 6 gns.

Write or telephone Resident Proprietor, A. H. ROW.
Telephone: Falmouth 180

Have You Ever?

. . ENJOYED every minute of every day—on the golf course, on the beach, in the car, on a surf-board, on the moors?

. . SLEPT every minute of every night and woken feeling ready to swim the Atlantic?

. . EATEN every meal with the appetite of youth and the appreciation of a connoisseur?

. . DANCED every yard with energy bred of Cornish air and Cornish sun?

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THE HEADLAND *by* NEWQUAY

Cornwall's Natural Touring Headquarters. 120 bedrooms with a sea view. Golf and tennis at the door. Write to S. Hall for descriptive brochure and tariff. Telephone: Newquay 2211

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CASTLE HOTEL, BANGOR

For scenery and serenity you can enjoy a peaceful holiday this year at this comfortable, modernised, historic house. An attractive centre for the beauties of North Wales.

And under the same direction—BULL BAY HOTEL *at* AMLWCH *in Isle of Anglesey.*

FOR the dignity of the past, plus the improvements of the present.

The King's Hotel, Brighton

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AND *NOW*, Mr. Business-Man! during the war, why not make your base at

Frequent electric trains reach London in half an hour. A most comfortable, quiet hotel, a lovely garden, excellent tennis courts. Telephone: 2271

If you must stay within reach of Town

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Here, facing South and overlooking Mount's Bay and St. Michael's Mount, is an hotel which for safety and sunshine cannot be beaten. 100 bedrooms. Modern bathrooms. Lift. Our telegraphic address is "Seaward," and our watchword "Comfort."

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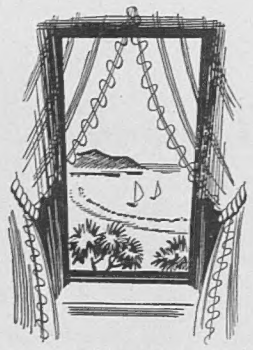

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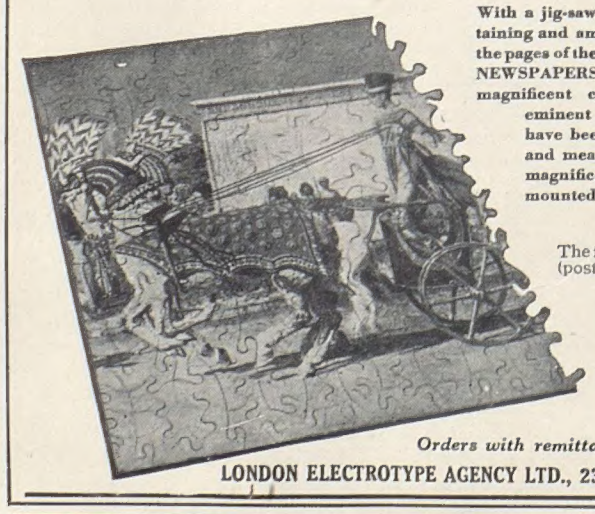

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